TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

No. 272.

WILLIAM TUCKER, PLAINTIFF IN ERROR,

vs.

NATHAN W. SPAULDING.

IN ERROR TO THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF CALIFORNIA.

FILED OCTOBER 31, 1870.

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a UNITED STATES OF AMERICA, *ss:*

The President of the United States of America to the judges of the circuit court of the United States of the ninth judicial circuit, in and for the district of California, greeting:

Because in the record and proceedings, and also in the renditiou of the judgment of a plea which is in the said circuit court, before you, between Nathan W. Spaulding as plaintiff, and William Tucker as defendant, a manifest error hath happened, to the great damage of the said William Tucker, as by his complaint appears; and it being fit that the error, if any there hath been, should be duly corrected, and full and speedy justice done to the parties aforesaid in this behalf, you are hereby commanded, if judgment be therein given, that then, under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the Supreme Court of the United States of America, together with this writ, so that you have the same at the city of Washington, D. C., on the first Monday of December next, in the said Supreme Court, to be there and then held, that, the record and proceedings aforesaid being inspected, the said Supreme Court may cause further to be done therein, to correct that error, what of right and according to the law and custom of the United States should be done.

Witness the Honorable Salmon P. Chase, Chief Justice of the said Supreme Court of the United States, this sixth day of December, A. D. 1869, and of the independence of the United States the ninety-fourth.

[SEAL.] Attest: GEO. E. WHITNEY,
Clerk U. S. Circuit Court District of California.

The above writ of error is hereby allowed, the court deeming it reasonable and proper to allow the same.

MATTHEW P. DEADY,
District Judge.
OGDEN HOFFMAN,
Dist. Judge for Cal'a.

b The return of the judges of the circuit court of the United States for the ninth circuit and district of California to the within writ, at the time and place therein mentioned, appears by the schedule hereto annexed.

By the court:

GEO. E. WHITNEY, *Clerk.*

(Indorsed:) 745. United States Supreme Court. Nathan W. Spaulding, defendant in error, vs. William Tucker, plaintiff in error. Writ of error. Received this 6th December, 1869. Geo. E. Whitney, clerk U. S. cir. ct. dist. of California. McAllisters & Bergin, att'ys for pl't'ff in error.

1 *Complaint.*

In the circuit court of the United States in and for the district of California, ninth circuit.

NATHAN W. SPAULDING, PLAINTIFF,
vs.
WILLIAM TUCKER, DEFENDANT.

The above-named Nathan W. Spaulding, as plaintiff, complains of

the above-named William Tucker, as defendant, and for cause of action alleges that he, the plaintiff, is now a citizen and resident of the State of California, and for more than thirty years last past has been a citizen of the United States of America, and that the defendant is at present a resident in this the State of California; that he, the said plaintiff, was the original and first inventor of a certain new and useful invention on machines, to wit, on saws and saw-plates, which improvement is fully shown and described in the reissued letters-patent hereinafter mentioned, and hereto attached and made a part of this complaint;
2 that the same was a new and useful invention, and consisted of setting teeth in saws and saw-plates upon a new plan; that the same was not known or used before his said invention, and was not at the time of his application for a patent in public use or on sale with his consent or allowance; that the said plaintiff, Nathan W. Spaulding, being so as aforesaid the inventor thereof, on the 10th day of September, 1861, upon due application therefor, did obtain certain letters-patent for the said invention, which said letters-patent were issued in due form of law under the seal of the Patent Office of the United States, and were signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents of the United States, and bore date the day and year last aforesaid; that afterwards, to wit, on the 21st day of April, 1863, upon due applications therefor, and upon the surrender to the Commissioner of Patents of the United States of the letters-patent aforesaid, new letters-patent were duly issued to the said plaintiff for the same invention for the residue of the period then unexpired
3 for which the said original patent was granted; that the letters-patent so reissued were issued in due form of law, under the seal of the Patent Office, and were signed by the Secretary of the Interior, and countersigned by the Commissioner of Patents of the United States, and were dated the day and year last aforesaid, and were delivered to the said plaintiff, whereby there was secured to him, Nathan W. Spaulding, his heirs, administrators, or assigns, for the term of seventeen years from the said 10th day of September, 1861, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the said reissued letters-patent, a copy of which is hereto annexed and marked "Exhibit A," and made a part of this complaint, and plaintiff says that he is still the owner and holder of said reissued letters-patent, and of the rights, privileges, and liberties by them granted; that, prior to the issuing of said letters-patent, as well as prior to the issuing of said reissued letters-patent, all proceedings were had and taken which were required by law to be had or taken previous to the issuance or
4 reissuance, respectively, of letters-patent granting special rights and liberties for new and useful inventions; that, from the time of the granting to him of the first of said letters-patent hitherto, the said plaintiff has been constantly manufacturing and using, and selling to others to be used, the said improvement upon saws and saw-plates, the same being his sole invention, to his great advantage and profit. Yet the said defendant, well knowing the premises, but contriving to injure the plaintiff, did, on or about the tenth day of July, 1868, unlawfully and wrongfully, and without the consent or allowance, and against the will of the plaintiff, bring within this the State of California, a large number of saws and saw-plates, having attached to them the said improvements of plaintiff, for the purpose of using, and selling to others to be used, the said saws and saw-plates, with plaintiff's said improvement so attached to them, and has since said date used, and sold to others

to be used, large numbers of said saws and saw-plates, with detachable teeth inserted in them, in exact imitation of, and after the plan
5 of, plaintiff's said invention; and from thence hitherto hath continued to use, and sell to others to be used, and offer for sale to others to be used, the said improvement and invention within the State of California, and within the jurisdiction of this hon. court, in violation and infringement of the exclusive privilege, right, and liberty secured to the plaintiff as aforesaid, and contrary to law and the form of the statutes of the United States in such cases made and provided.

And plaintiff says that, on account of the said acts of the defendant, he, the plaintiff, has been greatly injured and damaged, and deprived of great profits which he might and otherwise would have derived from the said invention and letters-patent, and has sustained actual damage to the amount of five thousand dollars; and by force of the statutes aforesaid an action has accrued to him to recover the said actual damage and such additional amount not exceeding in the whole three times the amount of such actual damages as the court may see fit to order and adjudge; that the acts of the defendant herein complained of
6 were done with full knowledge of plaintiff's said rights and patent, and with the deliberate intention of infringing upon the same, and for that purpose said defendant Tucker intrigued and confederated with James E. Emerson, James C. Wilson, Henry G. Ely, Samuel W. Putnam, and others, composing the "American Saw Company," in the State of New York, and from them received the saws brought to this State, as before stated.

Wherefore the plaintiff prays judgment against said defendant for the sum of five thousand dollars, actual damages, together with such further sum not exceeding in the aggregate three times the amount of said actual damages, and for such other and further relief as he may be entitled to have.

M. A. WHEATON and
ALFRED RIX,
Plaintiff's Attorneys.

STATE OF CALIFORNIA,
City and County of San Francisco:

Nathan W. Spaulding, being duly sworn, on his oath says that he is the plaintiff in the foregoing-entitled case; that he has heard
7 the foregoing complaint read, and knows the contents thereof; and that the same is true of his own knowledge, except as to the matters therein stated on information or belief; and as to those things, he believes it to be true.

NATHAN W. SPAULDING.

Subscribed and sworn to before me this 14th day of August, A. D. 1868.

J. H. BLOOD,
Notary Public.

[Seal of J. H. Blood, notary public, San Francisco, Cal.]

8 EXHIBIT A.

Reissue No. 1456.

The United States of America to all whom these letters-patent shall come:

Whereas Nathan W. Spaulding, of San Francisco, California, (for-

merly of Sacramento, Cal.,) has alleged that he has invented a new and useful improvement in setting teeth in saws and saw-plates, (for which letters-patent were issued to him, dated Sept. 10, 1861, which letters having been surrendered by him, the same have been cancelled, and new letters ordered to issue to him on an amended specification,) which he states has not been known or used before his application; has made oath that he is a citizen of the United States, that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a
9 patent may be granted for that purpose:

These are therefore to grant, according to law, to the said Nathan W. Spaulding, his heirs, administrators, or assigns, for the term of seventeen years from the tenth day of September, one thousand eight hundred and sixty-one, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given in the words of the said Nathan W. Spaulding in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand at the city of Washington this twenty-first day in the year of our Lord one thousand eight hundred and sixty-three, and of the independence of the United States the eighty-seventh.

[L. S.]

J. P. USHER,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

D. P. HOLLOWAY,
Commissioner of Patents.

10 *The schedule referred to in these letters-patent, and making part of the same.*

To all whom it may concern:

Be it known that I, Nathan W. Spaulding, of the city of San Francisco, formerly of the city of Sacramento, in the State of California, have invented a certain new and useful improvement on saws and saw-plates, and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters and marks thereon:

My improvement relates to that class of saw or saw-plates wherein detachable or removable teeth are fitted into recesses or sockets in the edge or periphery of the saw or saw-plate. Previous to my invention, the recesses or sockets formed in the edge or periphery of the saw-plates, and into which the teeth were to be fitted, were of the rectangular form, the bottom or base of the socket or recess being at right angles to the sides, or the recess or socket being of angular form. The teeth to be fitted into these sockets had also rectangular or
11 angular form; i. e., the body of the teeth, or that part which was to be fitted into the socket. In use, the pressure of these teeth necessarily bore upon the angles of the sockets; and in consequence of

the pressure and strain thereon, frequently fractures were made, extending from the socket into the saw-plate. These fractures always injured the saw-plate, and often entirely ruined it, so that very considerable loss would occur in using saws with detachable teeth.

Now, my invention has for its object the remedying of the difficulty that existed from the insertion of these teeth into the recesses or sockets above named; and my invention consists in providing the saw or saw-plate with teeth or other pieces set therein in circular lines, instead of angular, where the power is applied, whereby the pressure is distributed in equal proportions on the saw or saw-plate, and the danger of splitting, cracking, or breaking is entirely removed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation:

12 I construct my saw or saw-plate in any of the known forms, and fit and apply thereto teeth and other pieces necessary, with circular instead of angular lines at the base or other places therein, where the pressure or force applies; and in order to obviate the danger arising from the saw or plate splitting, cracking, or breaking at the place where the tooth or other piece is set in the saw or saw-plate, as generally is the case when set therein by angular lines, I set the tooth or other piece in the saw or saw-plate with circular lines, as shown at D D in the accompanying drawing, wherein letter A is a perspective view of a circular saw-plate; letters B are perspective views of sections of a circular saw-plate; letters C are perspective views of teeth to be set in the saw or saw-plates; letters D are perspective of the circular lines in the saw or saw-plate at the base of the teeth where the pressure applies, and where the plate usually splits, cracks, or breaks; and letter E represents a smooth rivet or key to fasten the tooth or other piece in the saw-plate. In the saw or plate wherein the tooth or other

13 piece is to be set, a "gain," with a beveling tongue on the inside and around the edge, and a semi-circular hole for a key on the lifting side, is to be made as represented in Figure 4, letters D D, the line at the points D D being circular instead of angular. The tooth, as represented in Figure 3, letter C, is to be made with a beveling groove on the outside or edge, with a semi-circular hole on the lifting side corresponding with the hole in "gain," represented in Figure 4, and letter E, by which, with a rivet, to fasten the tooth in the saw-plate; all the corresponding parts of the tooth to be inserted in the "gain" are to be fitted therein with exactness and precision, and fastened with a rivet as above described.

The recesses or sockets in the saw-plate for the insertion of the teeth may be made when the saw plate is formed—i. e., in the manufacture of the plate—or they may be made at any subsequent time by using a "gummer," or any other suitable tool or implement. In some instances it may be desirable to embrace the entire surface of the base or bottom of the socket or recess in the circular lines, while in others it may

14 only be necessary to embrace the terminal point of the sides of the socket; that point where the sides and bottom meet, and which constitutes the angle in the straight-line sockets or recesses, and the circular lines may be applied to the entire substance of the socket or recess, or they may be limited to the "gain" only; the application of my invention to the particular saw-plate, of course, being susceptible of being varied, as the character of the plate may, in the judgment of the maker or operator, require. While the circular lines may be greater or less, and embrace a greater or less amount of the recess or socket, the teeth to be inserted therein may also vary in form, it being even better to insert

teeth having rectangular bodies or base in the circular line sockets than in rectangular or angular sockets.

What I claim as new and desire to secure by letters-patent is:

1st. Forming the recesses or sockets in saws and saw-plates for detachable or removable teeth on circular lines, substantially as and for the purpose herein set forth.

15 2nd. In combination with sockets or recesses formed in saws or saw-plates, as herein recited, I claim teeth having their base or bottom parts formed on circular lines, as described.

This specification signed this 2d day of January, 1863.

N. W. SPAULDING.

Witnesses:
G. F. ALLARDT.
W. O. ANDREWS.

(Endorsed:) Filed August 14th, 1868. Geo. E. Whitney, by H. F. Lardner.

(Here follow maps marked page 15, Nos. 1 and 2.)

16 *Summons.*

UNITED STATES OF AMERICA:

In the circuit court of the United States in and for the district of California.

NATHAN W. SPAULDING, PLAINTIFF,
vs.
WILLIAM TUCKER, DEFENDANT.

Action brought in the said circuit court, and the complaint filed in the office of the clerk of said circuit court, in the city of San Francisco.

The President of the United States of America, greeting, to William Tucker:

You are hereby required to appear in an action brought against you by the above-named plaintiff, in the circuit court of the United States for the district of California, and to file your plea, answer, or demurrer to the complaint filed therein, (a copy of which accompanies this
17 summons,) in the office of the clerk of said court, in the city and county of San Francisco, within ten days (exclusive of Sundays and day of service) after the service on you of this summons, if served in this county, or, if served out of this county, then within forty days, or judgment by default will be taken against you.

The said action is brought to recover the sum of five thousand dollars actual damages, together with such further sum, not exceeding in the aggregate three times the amount of said actual damages, and for such other and further relief as he may be entitled to have for an alleged infringement of patent, more fully described in complaint annexed hereto; and if you fail to appear and plead, answer, or demur, as herein required, judgment by default will be entered against you, and each of you.

SEAL OF SAID COURT.

Witness the Honorable Salmon P. Chase, Chief Justice of the Supreme Court of the United States of America, this fourteenth day of August, in the year of our Lord one thousand eight hundred and sixty-eight, and of our independence the ninety-third.

18 GEO. E. WHITNEY, *Clerk*,
By CHA'S W. GRANT, *D. C.*

(Endorsed:)

U. S. MARSHAL'S OFFICE, *District of California:*

I hereby certify that I received the within summons on the 14th day of August, 1868, and served the same on the 14th day of August, 1868, by delivering to William Tucker, said defendant, personally, a copy of said summons, attached to a certified copy of the complaint, in the county of San Francisco.

CHA'S W. RAND, *U. S. Marshal,*
By W'M H. POTTS, *Deputy.*

Filed August 14, 1868.

GEO. E. WHITNEY, *Clerk,*
By CHA'S W. GRANT, *Dep'y.*

19 *Demurrer.*

In the circuit court of the United States in and for the State of California.

NATHAN W. SPAULDING, PLAINTIFF,
vs.
WILLIAM TUCKER, DEFENDANT.

The demurrer of William Tucker, the above-named defendant, to the complaint of Nathan W. Spaulding, the above-named plaintiff, alleges and shows to the court that it appears on the face of the said complaint—

1st. That this court has no jurisdiction of the subject-matter of the action.

2nd. That said complaint does not state facts sufficient to constitute a cause of action.

Wherefore defendant prays to be hence dismissed, with costs.

Dated San Francisco, 5th November, 1868.

H. AND C. MCALLISTER,
Att'ys for Def't.

(Endorsed:) Filed Nov. 5th, 1868. Geo. E. Whitney, clerk, by H. F. Lardner, D. C.

20 *Order overruling demurrer.*

At a stated term of the circuit court of the United States of America, for the district of California, held at the court-room in the city of San Francisco, on Friday, the 4th day of December, in the year of our Lord one thousand eight hundred and sixty-eight:

Present, the Honorable Ogden Hoffman, judge.

NATHAN W. SPAULDING
vs.
WILLIAM TUCKER.

The hearing on the demurrer to the complaint in this cause, having heretofore been set for this day, came on for argument, M. A. Wheaton, esq., appearing in opposition to said demurrer; and the arguments of counsel having been heard, it was ordered that the demurrer be overruled, and that defendant have ten days to answer.

21 *Answer.*

In the circuit court of the United States of the ninth circuit in and for the State of California.

NATHAN W. SPAULDING, PLAINTIFF,
vs.
WILLIAM TUCKER, DEFENDANT.

The defendant in the above-entitled action, for answer to the complaint of the plaintiff therein, denies that said plaintiff was or is the original or first inventor or any inventor of a certain new or useful invention on machines, or of any new or useful invention on machines, or of any invention at all on machines; denies that said plaintiff was or is the original or first inventor or any inventor of a certain new or useful or of any new or useful invention, or of any invention at all on saws or saw-plates, or on any saw or saw-plate; denies that the pretended invention in the complaint mentioned was or is a new or useful
22 invention or any invention; denies that the pretended invention in the complaint mentioned was not known or used before plaintiff's pretended invention thereof, or was not, at and long previous to said plaintiff's alleged application for a patent therefor, well known and in public use and for sale without the consent or allowance of plaintiff thereof; avers, on the contrary, that, at the time of plaintiff's alleged application for a patent for said pretended invention in the complaint mentioned, and long prior thereto, said pretended invention was well and widely known and used and sold without the consent or allowance of plaintiff thereof; admits, upon information and belief, that, on or about the dates specified in that behalf in the complaint, said plaintiff did obtain certain pretended letters-patent, and upon surrender of those first obtained did obtain certain other pretended letters-patent, but avers that both of said pretended letters-patent were and are wholly null and void; denies that at the time of applying for or obtain-
23 ing said pretended letters-patent mentioned in the complaint, or either or any of them, or at any time, plaintiff was the first or original or any inventor of the pretended invention mentioned in the complaint; denies that on April 21st, 1863, or at any other time, new or any letters-patent were duly issued to plaintiff for the pretended invention mentioned in the complaint for the residue of the period then unexpired or for any period whatever; denies that said pretended reissued letters-patent secured to plaintiff, his heirs, administrators, or assigns, or either or any of them, for the term of seventeen years, or for any term or period of time whatever, the full or exclusive right or liberty or any right or liberty of making, constructing, using, or vending to others or to any one to be used, said pretended improvement mentioned; denies that plaintiff is the holder or owner of any rights, privi-
24 leges, or liberties by virtue of said pretended reissued letters-patent or otherwise or at all; denies that plaintiff at any time was or now is, by virtue of said pretended letters-patent in the complaint mentioned, the holder of any right or *right or* rights, privilege or privileges, or liberty or liberties, or that said last-mentioned pretended letters-patent conferred any right or rights, privilege or privileges, liberty or liberties whatever on plaintiff; upon information and belief, denies that prior to the issuing of said pretended letters-patent mentioned in the complaint, or at any time, or prior to the issuing of said pretended reissued letters-patent in the complaint mentioned, or

prior to the issuance of either or any of the pretended letters-patent in the complaint mentioned, or at any time, all or any proceeding or proceedings were had or taken which were required by law to be had or taken previous to the issuance or reissuance of said pretended letters-patent respectively or otherwise; denies that either or any of said pretended letters-patent in the complaint mentioned granted plaintiff any special rights or liberties or any rights or liberties whatever for
25 new or useful inventions, or for any new or useful invention, or for any invention whatever; denies that the pretended invention in the complaint mentioned is, or at any time was, the sole invention or any invention of plaintiff, or that he has been constantly, or at all, manufacturing or using or selling to others to be used, to the great advantage or profit, or any profit or advantage, of plaintiff's said pretended improvement; denies that defendant well knew or knew at all the premises mentioned in the complaint; denies that defendant at any time contrived or attempted or intended to injure plaintiff in any manner; denies that, on or about July 10th, 1868, or at any other time, defendant wrongfully or unlawfully, within the State of California or elsewhere, a large number or any number of saws or saw-plates, or any saw or saw-plate having attached to them or any of them said pretended improvement of plaintiff, for the purpose of using or selling to others to be used or for any purpose said saws or saw-plates or any saw or
26 saw-plate with plaintiff's pretended improvement so attached or in any manner attached to them or any of them, or has since said date or at any time used or sold to others to be used large numbers or any number of said saws or saw-plates or any saw or saw-plate with detachable teeth inserted in them in exact imitation or in imitation all of or after the plan of plaintiff's said pretended improvement or invention; denies that thence hitherto or at any time defendant has continued to use or sell, or has at all used or sold to others to be used or offered for sale to others or to any one to be used, the pretended improvement or invention of plaintiff, within this State or elsewhere, or within the jurisdiction of this court or elsewhere, in violation or infringement of the exclusive privilege, right, or liberty, or in any violation or infringement of any privilege, right, or liberty of plaintiff of any kind whatever secured to plaintiff as alleged or otherwise, or contrary to the laws or statutes, or any law or statute of the United States in such case
27 or in any case made and provided; denies that, on account of the acts or any act of defendant, plaintiff has been greatly or at all or in any manner injured or damaged or deprived of great profits or any profits which he might otherwise or at all receive or derive from said pretended invention or letters-patent; denies that plaintiff has sustained actual or any damage to the amount of five thousand dollars, or to any amount whatever; denies that by force of the statutes aforsaid, or by force of any statute, or by force or reason of anything else, an action has or at any time ever did accrue to plaintiff to recover said pretended alleged actual damage or any damage the court may see fit to order, or to adjudge that the acts, or any act of defendant complained of, are or were done with full or any knowledge of plaintiff's pretended rights or any of them, or said pretended patents or any of them, or with the deliberate intention or any intention of infringing upon any of plaintiff's pretended rights or any of them; denies that for the purpose al-
28 leged or for any purpose defendant intrigued or confederated with James E. Emerson, James C. Wilson, Henry G. Ely, Samuel W. Putnam, or either or any of them, or any person or persons composing

the "American Saw Company," in the State of New York, or with said American Saw Company or any company.

And, further answering, defendant avers that long prior to the time of the alleged pretended invention of plaintiff, and long prior to his said application for a patent therefor in 1861, said pretended invention of plaintiff was well and widely known and used; and further answering avers, upon information and belief, that previous to June 19th, 1855, one Jonah Newton, then and prior thereto a citizen of the United States and of the State of New York, was the original and first inventor of a certain then new and useful invention on saws and saw-plates, which was not used or known prior to the discovery thereof by said Newton, and was not, at the time of the application of said Newton for a patent therefor, in public use or on sale without his consent; that said
29 Newton, being so the inventor thereof, did, on said June 19th, 1855, upon due application therefor, obtain certain letters-patent of the United States, in due form of law, for his said invention, and which letters-patent were, on the day and year last aforesaid, duly issued and delivered to said Newton, wherein and whereby was secured to said Newton, his heirs, administrators, or assigns, for the term of fourteen years from June 19th, 1855, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, his said invention, which invention *which invention* was and is the same as that of which said plaintiff claims to be the inventor; by reason whereof all and singular the pretended letters-patent to plaintiff, mentioned in the complaint, were and are wholly null and void.

Wherefore defendant prays judgment in his favor for costs.

Dated San Francisco, January 4th, A. D. 1869.

McALLISTERS & BERGIN,
Atty's for Defendant.

30 STATE OF CALIFORNIA,
City and County of San Francisco, ss:

William J. Tucker, having been duly sworn, says that he is the defendant in the above-entitled action; that he has read the foregoing answer, and knows the contents thereof; that the same is true of his own knowledge, except as to the matters which are therein stated on his information and belief, and as to those matters that he believes it to be true.

WILLIAM J. TUCKER.

Subscribed and sworn to before me this 4th day of January, A. D. 1869.

HENRY HAIGHT,
Notary Public.

[Seal of H. Haight, Notary Pub.]

(Endorsed:)

Due service of a copy of the within answer admitted this 7th day of January, A. D. 1869, and def't given until this day to file this.

M. A. WHEATON,
Att'y for Plaintiff.

Filed Jan'y 7, 1869.

GEO. E. WHITNEY, *Clerk*,
By C. W. GRANT, *Dep'y.*

31 *Notice.*

In the circuit court of the United States, of the ninth judicial circuit, in and for the district of California.

NATHAN W. SPAULDING, PLAINTIFF,
vs.
WILLIAM TUCKER, DEFENDANT.

1 Notice

To Nathan W. Spaulding, the above-named plaintiff:

Take notice that, on the trial of the above-entitled action, the defendant therein, under and by virtue of the act of Congress in that behalf made and provided, will prove that said plaintiff was not the original inventor of the alleged invention in the complaint alleged and attempted to be described in the patent therein named; that prior to the time of the alleged invention thereof, to wit, of said new and useful invention in said complaint alleged, one H. Sornberger, then or now resident of or near Georgetown, El Dorado County, State of Cal-

32 ifornia, had invented and used the same in the year 1860–1861, and subsequently thereto; that said plaintiff fraudulently and surreptitiously appropriated said invention from said Sornberger, and obtained the alleged invention therefor in fraud of the rights of said Sornberger; and will also prove by James C. Emerson, now of the city of Trenton, State of New Jersey, that said alleged invention was known and used prior to the alleged invention thereof by said plaintiff, both at the city of San Francisco and the city of Sacramento, in the State of California, and also in the city of New York, and will prove the same matters last stated by David L. Emerson, of Oakland, Alameda County, California; also that the description and specification filed by plaintiff does not contain the whole truth relative to plaintiff's alleged invention, and that the description, specification, and claim are too broad, vague, and uncertain to produce the effects therein described and claimed.

Dated San Francisco, October 2nd, 1869.

McALLISTERS AND BERGIN,
Attorneys for Defendant.

(Endorsed:)

33 Service of a copy of the within notice admitted this 2nd day of October A. D. 1869.

M. A. WHEATON,
Pl'ff's Att'y.

Filed 2nd October, 1869.

GEO. E. WHITNEY, *Clerk.*

34 *Judgment.*

In the circuit court of the United States for the district of California.

NATHAN W. SPAULDING
v.
WILLIAM TUCKER. } No. 745.

This cause having regularly come on for trial on the 21st day of October, A. D. 1869, being a day in the October term, 1869, of this court, the parties being present by their respective counsel, and the following

persons having been duly empannelled as a jury to try the issue herein, viz: R. P. Johnson, Louis Cohn, Louis Sachs, John McComb, J. R. Mead, T. B. Coghill, W. C. P. Parker, William Bryan, Henry Gregory, Cha's A. Hawley, Moses Rosenbaum, and Charles F. Hamilton; and the parties having introduced their testimony upon the said 21st day of October, and subsequently on the 22nd, 23d, 25th, and 26th days of the same October; and on said last day the cause having been submitted to the jury under the instructions of the court; and the jury having on the same day rendered the following verdict: "We, the jury,
35 find for the plaintiff, and place the damages at one thousand dollars;" and the counsel for plaintiff having afterwards moved that said damages be trebled, which motion was, on the 30th day of October, 1869, argued and submitted for decision; and the court having on the 6th day of November, 1869, ordered that the damages found by the jury be doubled, and that judgment be entered in favor of plaintiff for $2,000 00 and his costs; and the entry of judgment having been stayed by order of court from time to time until this day:

Now, therefore, in consideration of the premises, it is considered and adjudged that said Nathan W. Spaulding, plaintiff, do have and recover of and from said William Tucker, defendant, the sum of two thousand dollars, and his costs in this behalf expended, taxed at $1,087 80.

Judgment entered this 25th day of November, A. D. 1869.

Attest: GEO. E. WHITNEY, *Clerk.*

A true copy.

Attest: GEO. E. WHITNEY, *Clerk.*

Judgment recorded in judgment register No. 1, page 347.

36 *Certificate to judgment roll.*

I, George E. Whitney, clerk of the circuit court of the United States for the ninth circuit in and for the district of California, hereby certify that the foregoing papers attached together constitute the judgment roll in the cause therein entitled, according to the rules of said court.

Witness my hand and the seal of said court this 25th day of November, A. D. 1869.

GEO. E. WHITNEY, *Clerk.*

[Seal of the U. S. circuit c't, dist. of Cal'a.]

(Endorsed:) Judgment roll. Filed 25th November, 1869. Geo. E. Whitney, clerk.

37 *Defendant's bill of exceptions.*

In the circuit court of the United States of America of the ninth judicial district in and for the State of California.

NATHAN W. SPAULDING, PLAINTIFF,
vs.
WILLIAM TUCKER, DEFENDANT.

Be it remembered that, at the regular October term of the above-named court, held in the city of San Francisco, State aforesaid, in the year 1869, the above-entitled action came on regularly for trial before the court and a jury duly selected and empannelled to try the same.

And thereupon the plaintiff, to maintain the issues on his part, read in evidence to the jury and court the United States letters-patent, whereof a correct copy is hereto annexed and marked Exhibit "A," which exhibit is hereby referred to and made part hereof; and exhibited in evidence, to the court and jury, saws and saw-teeth made ac-
38 cording to said letters-patent, whereof models were exhibited in evidence.

And the plaintiff then and there gave further evidence showing that circular saws and saw-plates, with detachable teeth inserted therein in rectangular lines, was well known and used for thirty years and upwards prior to the trial of this action.

EXCEPTION NUMBER 1.

Thereupon counsel for plaintiff propounded to Nathan W. Spaulding, the plaintiff herein and the witness then under examination, the following question, as tending to establish the utility of the alleged invention in Exhibit "A:"

Quest. Give a full description of what difference it (the insertion of detachable teeth on circular lines in circular saws and saw-plates) made in the extent of the manufacture of them.

To which defendant's counsel objected, on the ground that it was immaterial and irrelevant, in that increased extent of such manufacture did not conduce or tend to establish the utility of said invention, and the same was immaterial.

39 But the court then and there overruled the said objection of defendant, and admitted the same in evidence, and the witness testified fully in regard thereto, and also gave testimony tending to show that all the saw-teeth manufactured by him went into use for sawing lumber; to which ruling of the court defendant's counsel then and there duly excepted, and did then and there tender to the court this his bill of exceptions, which the court did then and there sign and seal.

EXCEPTION NUMBER 2.

And thereafter, in further examination of said witness, the counsel for the plaintiff asked the witness the following question:

Quest. You inserted how many saw-teeth during the last year?

To which counsel for the defendant then and there objected, on the ground that it was immaterial and irrelevant, and that it was not competent to examine the witness as to the number of saws and saw-teeth manufactured down to the present time.

40 The court overruled the objection, and the witness thereupon testified fully in evidence in regard thereto, to which ruling counsel for the defendant then and there duly excepted, and tendered this his bill of exceptions to the court to sign and seal, and the court did thereupon sign and seal the same.

EXCEPTION NUMBER 3.

Thereafter, in the cross-examination of the said witness, Nathan W. Spaulding, the plaintiff and alleged inventor, to whom said letters-patent were issued, the defendant's counsel, for the purpose of repelling and disproving the claim of novelty of the alleged invention, offered to show by said witness, and the documentary evidence, under the seal of

the United States Patent Office, whereof full, true, and correct copies are hereunto annexed, marked Exhibit "B," and hereby made part hereof, that the said Spaulding's application for United States letters-patent for the alleged invention described in and for which the said letters-patent hereinbefore mentioned, and herein marked as Exhibit "A," were issued to said Spaulding, was twice rejected by the United
41 States Patent Office, for the reason that the same *not* being for detachable teeth inserted in circular saws and saw-plates, which was a thing heretofore well known and used; that the rounding of the corners of such detachable teeth at the corners of the base thereof merely involved the exercise of well-known mechanical means for securing a distribution of the force applied thereon upon a larger space, and did not involve any power of invention, and was not the subject of a patent.

But the court refused to admit the evidence, or any part thereof, to which ruling of the court the counsel for the defendant did then and there duly except, and did thereupon then and there tender this his bill of exceptions to the court to sign and seal, and the court did thereupon then and there duly sign and seal the same.

Exception Number 4.

Thereafter, and in further cross-examination of said witness, N. W. Spaulding, for the purpose of repelling the claim of novelty in the discovery of said alleged invention in said letters-patent described,
42 and showing that the discovery thereof merely involved the exercise of mechanical skill, and not the power of invention, the counsel for the defendant offered to propound to said witness, then on the stand, the following question:

Quest. Is it not a familiar device in practical mechanics to arrest or prevent a crack or split by rounding the point wherever a special pressure or strain occurs at that point, for the purpose of relieving that point by distributing the pressure or strain on a circular or rounded line?

Then I will follow it up by asking him if that device is not frequently used in the case of the tenon and the mortice; then whether that device is not frequently used to prevent or arrest a crack in a *in a* stove; also in iron or glass plates, (each of these being separate questions.)

To which said questions, and every of them, and the evidence in connection therewith, plaintiff's counsel then and there objected, on the ground that the same was incompetent and irrelevant; and thereupon the court sustained said objection to said questions, and every of them, and refused to allow said questions and testimony, or either of them, so objected to by plaintiff's counsel, to which ruling of the court
43 the counsel for the defendant did then and there duly except, and *did then and there duly except, and* did then and there tender to the court this his bill of exceptions to sign and seal the same, and the court did then and there duly sign and seal the same.

Exception Number 5.

Thereafter, in the re-examination of said witness, Nathan W. Spaulding, he testified in evidence to the jury as follows:

Quest. You say that the defendant was underselling you?

Ans. Yes, sir.

Quest. Do you know that fact; if so, how?

Ans. I know it from the fact of my customers coming to me and getting my prices, and reporting to me that they went to their house and got their prices.

COUNSEL FOR DEFENDANT. He is all the time bringing in hearsay testimony, your honor.

44 Quest. How can you say we were underselling you if you don't know anything about it of your own personal knowledge?

Ans. The same way that any parties will know the market price, and what things are thrown upon the market. There is a way we have of knowing without going to the place and pricing the goods ourselves.

Quest. Did you personally know at what prices we were selling our saws?

Ans. Personally—that is, from my own inquiry—I did not.

Quest. All you know upon that subject is what you were told by your customers, as I understand?

Ans. Yes, sir.

Thereupon counsel for the defendant moved the court to strike out all of the testimony of said witness in regard to such supposed underselling of the defendant, on the ground that the same was merely hearsay, and was for that reason incompetent, but the court refused to strike

45 out the same, to which ruling of the court the defendant's counsel then and there duly excepted, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there duly sign and seal the same.

EXCEPTION NUMBER 6.

And thereafter, in the further progress of the trial of said action in support of the issues thereon on the part of the defense, the counsel for the defendant read in evidence to the court and jury letters-patent of the United States of America, bearing date September 12th, 1865, issued to James E. Emerson, of which a full, true, and correct copy is hereto annexed, marked Exhibit "C," and is hereby made part hereof; and also read in evidence to the court and jury certain other letters-patent of the United States of America, bearing date August 28th, 1866, issued to the American Saw Company, of which last-named letters-patent a full, true, and correct copy is hereto annexed, marked Exhibit "D," and is hereby made a part hereof; and did then and there exhibit in

46 evidence to the court and jury circular saws with detachable teeth inserted therein, made under said two last-named United States letters-patent, which are the same saws claimed in this action to be an infringement on the alleged right of the plaintiff, (correct models of which were exhibited in evidence before the court and jury.) And thereupon the counsel for the defendant, for the purpose of repelling and disproving the claim of novelty and originality in the discovery of the alleged invention described in the said letters-patent issued to the plaintiff, and hereto annexed, marked Exhibit "A," did offer to read in evidence to the court and jury a duly certified copy of certain other United States letters-patent, bearing date and purporting to have been issued on June 19th, 1855, to Jonah Newton by the United States of America, of which said last-named letters-patent a full, true, and correct copy is hereunto annexed, marked Exhibit "E," and is hereby made part hereof.

But on objection thereto being made by counsel for the plaintiff that said letters-patent to Jonah Newton were incompetent and irrelevant,

the court ruled that the said last-named letters-patent to said Jonah Newton were not for the same invention described and claimed
47 in the said letters-patent issued to the plaintiff hereto annexed, marked Exhibit "A;" that the said letters-patent to said Jonah Newton were for a rotary chisel and not a circular saw, or any saw, and were inadmissable, and did thereupon exclude the said letters-patent to said Jonah Newton from the evidence; to which ruling and decision of the court the counsel for the defendant did then and there duly except, and did then and there tender to the court this bill of exceptions to sign and seal, and the court did then and there duly sign and seal the same.

Exception Number 7.

Thereafter, and after the counsel for the defendant had read in evidence the several patents, and exhibited in evidence to the court and jury the circular saws, as stated in exception hereinbefore, marked number 6, the counsel for the defendant, in addition to offering to read in evidence the said letters-patent to Jonah Newton, as in said exception number 6 is set forth, did further, and in connection therewith, offer to
48 prove to the court and jury by competent experts, then ready in court to be sworn, that the process of said Newton patent, and of the machine made thereunder, and of the result produced thereby, are the same process, machine, and result as are involved in said patent of plaintiff hereto annexed, marked Exhibit "A;" that saws are made under the said Newton patent, and are in practical operation, (and then and there, furthermore, did offer to exhibit in evidence to the court and jury saws made and operated according to said Newton patent;) that the machine made under said Newton patent rotates in precisely the same manner and with the same effect as a circular saw, and that what in said Newton's patent are designated cutters perform the same functions as the detachable teeth described in said letters-patent hereto annexed, marked Exhibit "A," and accomplish the same result; and to prove to the court and jury by competent experts that said cutters are nothing in reality but detachable saw-teeth inserted on circular lines, and rounded at the base, and inserted in circular sockets, and secure an equal distribution of the pressure on the said cutters over and
49 upon the circular sockets in which they are set, and thus prevent fracture of the disc or plate.

But the court, upon the objection of plaintiff, then and there refused to admit such evidence, or any part thereof, and excluded the same from the consideration of the jury; to which ruling of the court the counsel for the defendant did then and there duly except, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did thereupon duly sign and seal the same.

Exception Number 8.

Thereafter, in the further progress of the trial, the counsel for the defendant offered to read in evidence to the court and jury, from the deposition duly taken of Newton Crawford, (an expert in the various kind of saws known, and an expert in machinery and mechanics, who had been for years an examiner of patents for inventions in machines and applications therefor in the United States Patent Office, at Washington, D. C., and who first carefully examined a duly certified copy of the letters-patent to the plaintiff hereto annexed, marked Exhibit "A, and stated that he fully understood the same,) the following ques-

50 tion to said Newton Crawford, and his answer thereto, for the purpose of ascertaining the meaning, as a term of art, of detachable teeth inserted in circular saws on circular lines, and the meaning of sockets or recesses in circular saws formed on circular lines, which question, and the answer thereto, were in the words following:

Quest. State whether or not the recesses or sockets for the reception of teeth which are represented in the copy of the Spaulding reissued (Exhibit "A" hereto annexed) are in circular lines.

Ans. I find upon examination that there are in the recess and upon the tooth circular forms interrupted and intersected by right lines, not having any continuous circular line.

Quest. Can it be properly said that a recess is in a circular line when only the two lower corners are rounded off, and the two rounded corners are connected by a bottom straight line, and having straight lines extended on either side from the rounded corners to the top of the recess?

Answer. I should say not, because the straight lines between
51 the rounded corners at the bottom of the recess and the straight lines upon the two sides of the recess form a portion of the recess, as well as the rounded corners.

But on objection of plaintiff's counsel thereto, the court excluded said questions, and every of them, as irrelevant and incompetent; to which ruling of the court the counsel for the defendant then and there duly excepted, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court thereupon did then and there sign and seal the same.

Exception Number 9.

Thereafter, in the further progress of the trial of said action, and for the purpose of disproving infringement, the counsel for the defendant offered to prove to the court and jury, by competent experts then ready in court to be sworn and examined, that the saws used and sold by the defendant, made under the said United States letters-patent issued, one September 12th, 1865, to James E. Emerson, and the other issued August 28th, 1866, to the American Saw Company, and hereinbefore
52 marked respectively Exhibit "C" and "D," differ in form and in the mode of insertion therein of detachable teeth from the saws of plaintiff, made according to his letters-patent hereto annexed, and marked Exhibit "A," and that such difference in the form and mode of insertion of the detachable teeth were productive of new and beneficial results not produced by the saws of the plaintiff, or the manner of insertion of the teeth as claimed in and by said letters-patent of plaintiff; that the back of the detachable tooth of plaintiff's circular saws was formed on a straight line, whereas the back of the tooth of the defendant's saws, manufactured according to said patents marked "C" and "D," was rounded, and the base of the tooth was formed on a straight line; that in consequence of the back of the tooth being thus rounded, it was more firmly held in its position, and the plate of the saw much better protected thereby from the friction of the sawdust, and rendered more durable.

But on objection of plaintiff's counsel thereto, that the same was irrelevant and immaterial, the court refused to admit such offered testimony, or any part thereof, and excluded the same from the consideration of the jury; to which ruling the counsel for the defendant
53 then and there duly excepted, and did then and there tender this

Ans. The first that I owned a saw-mill of my own, I believe, was about in 1858. I think it was up in El Dorado County, near Georgetown.

Quest. Do you know Mr. Nathan W. Spaulding, the plaintiff?

60 Ans. Yes, sir.

Quest. When did you make his acquaintance?

Ans. I think about the first acquaintance I had with Mr. Spaulding was in '60, early in the spring, or perhaps in the fall of 1859.

Quest. Where was he then?

Ans. He was in Sacramento.

Quest. Where did you see him first, and what was the occasion of your going to see him?

Ans. I do not know that I ever saw Mr. Spaulding before the spring, I think, of 1860.

Quest. What was the occasion of your going to see Mr. Spaulding, or did you go to him or he come to you; how was that?

Ans. I went to see Mr. Spaulding in Sacramento. I think it was the first time I ever saw him; I don't know.

61 Quest. Will you state whether anything passed between you and him in reference to repairing a saw? Did you take a saw-plate to him?

Ans. Yes, sir.

Quest. For what purpose?

Ans. I sent a saw-plate to Mr. Spaulding, I think about—it must have been about—in December of 1859, or January in '60, that I sent a plate to him, perhaps.

Quest. You did not take it yourself; you sent it by a third person?

Ans. I sent the plate by a team.

Quest. Do you recollect whose team it was?

Ans. I do not. I presume the plate must have reached him by railroad, something like that. I think I shipped it to Folsom, and from there to Sacramento.

Quest. Where did you ship it from?

Ans. My place in El Dorado County

62 Quest. What place in El Dorado County?

Ans. Georgetown—about two miles and a half from Georgetown.

Quest. Then, when did you see him personally?

Ans. I saw him—I think it was either in January or February—I think in '60.

Quest. What passed between you and him in reference to that saw-plate?

Ans. Well, I went to Mr. Spaulding after I had sent my plate down there for repairs—well, I started from home with the intention—I had sent it to him to have teeth put in it, and the only patent I knew of Spaulding having at that time was those square-cornered teeth.

Quest. Well?

Ans. And I started for Sacramento with the intention of not having those teeth put in my saw, although I had ordered it done by him.

63 Quest. Well, what passed between you and him?

Ans. Well, I went down there; I went to his shop, and we talked something about the saw-teeth, and I told him we had concluded not to have them put in.

Quest. Well?

Ans. He asked the reasons why; I told him there was danger of breaking the saw, and I had suffered a loss of that kind before, and I was

not able to stand it, and could not stand the loss of breaking of another saw. Well, we talked there some time on various things; I disremember our conversation entirely; finally, I told Mr. Spaulding I thought the teeth might be inserted in the saw on a circular principle, or something of that kind, which would avoid it.

Quest. You say "which would avoid it?" What do you mean by it?

Ans. Which would avoid breaking the saw, is what I mean.

Quest. Well?

64 Ans. We talked some little time about it, and Mr. Spaulding made some objections; well, he spoke in various ways; that he had not time; that he was drove a good deal.

Quest. Well?

Ans. And finally I told him that I would not have those square-cornered teeth in my saw, and if I could not have different teeth put in I would have my saw gummed out and sent back; that is, cut out the vacant place, to save filing between the teeth.

Quest. Anything further?

Ans. Well, we had some conversation about it; I could not recite it all, as I know of.

Quest. How was it finally settled between you and him?

Ans. Well, it was finally settled by Mr. Spaulding inserting them teeth in my saw.

Quest. What kind of teeth?

65 Ans. Well, those rounding-cornered teeth, the same as he shows here; the same as those are, (showing.)

Quest. When you first said to Mr. Spaulding that the teeth might be inserted on a circular principle which would avoid breaking, you say, "We talked about it." If you cannot give the conversation, give the substance; if you cannot give the precise words, give the substance of what Mr. Spaulding said in regard to teeth being inserted on the circular principle to avoid breaking the saw? What did he say, if anything, in regard to that?

Ans. I do not know as I could really tell; there was considerable said in regard to it.

Quest. If you cannot give the language, can you give the substance of what was said; how did he receive the proposition?

Ans. Well, as near as I remember, Mr. Spaulding did not seem to say a great deal about it. I know he made two or three excuses—that he had not time to do it; that he would have to fit up some ma-

66 chinery, as that he had to work the teeth; and made the remark in regard to my saw, he said there was very few instances where a saw was a total failure like mine had been—or a total loss, rather—and said of that crack that you might drill a hole at the end of the crack, and that would stop that; something like that.

Quest. What did you say about his saying he had no machinery to round out the corners? You made some remark that I did not catch.

Ans. He said that he would have to alter his machinery, I think, in order to do it; something of that nature.

Quest. When did you first hear that Mr. Spaulding had taken out a patent for this matter of rounding the base of the teeth?

Ans. The first that I ever knew of that Mr. Spaulding had taken out a patent was, perhaps, about three weeks after he inserted those teeth in my saw; as I told him at the same time I wanted a duplicate set of teeth, and the first teeth that was put in my saw was not marked at all.

Quest. What?

67 Ans. The first teeth was plain in my saw.

Quest. You mean they had no name?

Ans. No name, nor design, patent, or mark of a patent; but about three weeks afterwards he sent my duplicate set of teeth, marked on it "design patent," or "patent applied for." I think it was "design patent."

Quest. Something with patent in it?

Ans. Yes, sir.

Quest. About three weeks after?

Ans. I think it was a short time after, anyway.

Quest. This saw of yours was a saw-plate with detachable teeth, was it?

Ans. Yes, sir.

Quest. What kind of teeth were those?

The court:

Wait a moment. You say this saw had detachable teeth before you brought it to him?

68 Ans. Not this one. The saw I brought to him had natural teeth in it.

Mr. McAllister:

Quest. Just one solid piece?

Ans. Yes, sir.

Q. You took it there for the purpose of having detachable teeth inserted?

Ans. Yes, sir.

Quest. Had you one previous to that with detachable teeth?

Ans. I had.

Quest. What kind of teeth were used?

Ans. On this principle, (showing one of the square-cornered teeth.) Like that in principle.

Quest. Square-cornered teeth?

Ans. Square-cornered teeth. All the difference there was in
69 the teeth was in the front teeth, (showing.) I cannot see this, but I believe that is his patent or model. In front of these teeth the saw is grooved for these teeth, and the tooth tongued. The ones I put in my saw, all the difference was I grooved the tooth all around, and tongued the saw all around. That is the only difference between those teeth and these.

Quest. Those teeth were square-cornered teeth?

Ans. Those teeth were square-cornered teeth.

Quest. Then your saw broke?

Ans. I broke it all to pieces; it was a total wreck.

Quest. Then you went to him with a solid saw?

Ans. Yes, sir.

Quest. And you wanted him to put in detachable teeth, but you objected to the square-cornered teeth?

Ans. I did.

Quest. How far did you get in regard to that? Did you direct a model, or anything of that kind?

70 Ans. I did not, to my knowledge.

Quest. Simply a conversation?

Ans. Simply a conversation that we had together.

Quest. Did Mr. Spaulding draw out anything, and you together arrange the form of the teeth?

Ans. I could not say. I presume a good many gestures were made on both sides; but so far as form is concerned, I could not say there was.

Quest. Did you, after you heard he had a patent, write to Mr. Spaulding on that subject?

Ans. Well, I have written to Mr. Spaulding two or three different times in regard to business; business matters and saws, &c.

Quest. What subject did you write to him upon?

Ans. I think I wrote to him on one subject, and telling him how my saw operated—how it worked.

71 Quest. How long was that after he had put the rounded-faced tooth into your saw?

Ans. I do not remember.

Quest. You wrote to him, and told him how that saw worked?

Ans. Yes, sir.

Quest. That is the saw he first made for you?

Ans. Yes, sir; the first and only one, I suppose.

Quest. After you heard of his patent, did you ever write to him upon that subject at all?

Ans. I wrote to Mr. Spaulding one letter after I saw his patent on those teeth, but I never received any letter from Mr. Spaulding in regard to it; never received any answer.

Quest. What year was it you had written in?

Ans. That was in 1860.

72 Quest. Soon after you received this duplicate set of teeth, when you saw the word "patent" on it?

Ans. Yes, sir.

Mr. McALLISTER. We have given no notice to produce that letter, but I call upon Mr. Spaulding if he has got it to produce it.

Mr. WHEATON. We never received any such letter.

Mr. McALLISTER. I do not know, but I am entitled to give secondary evidence in regard to it. (After discussion,) I will not press it.

Quest. Did you write to him upon that subject after you saw that word "patent?"

Ans. Yes, sir.

Mr. McALLISTER. That is all; the witness is yours.

Cross-examination by Mr. Wheaton:

Quest. You say you wrote to Mr. Spaulding regarding his patent. Do you know whether he ever received that letter or not?

73 Ans. I do not, sir.

Quest. Do you remember how you sent it?

Ans. I do not know whether I sent it through post or express; one or the other.

Quest. Was the first teeth you inserted in saws the square corners.

Ans. They were; yes, sir.

Quest. Was the first you made in 1859?

Ans. No; I think the ones I inserted in my saw was in 1858, I think.

Quest. Did you ever put them in more than one saw?

Ans. I did not.

Quest. Why did you not?

Ans. The idea had never occurred to me, and I did not know there was ever any patent on that principle. I never knew there was any put in in circular saws except in square corners.

74 Quest. When did the saw break—the one you put teeth in with square corners?

Ans. I broke the saw some time in the summer of 1860; no, some time in the summer of 1859. I think in 1858—I forget which—1858. I believe it was some time during the summer; no, it was in 1859, during the summer of 1859, I think.

Quest. Did the saw break all at once?

Ans. It broke all at once; broke while running in a cut; a total failure, pretty near.

Quest. Did it break from the corners of the socket?

Ans. I could not tell, sir; it broke instantly almost, and all flew to pieces, or it broke off about one-third of the saw, I think, and broke into various pieces; about ⅔ was left on the shaft, I should judge.

Quest. Why did you think it broke on account of teeth being inserted?

Ans. Well, I had used a saw a good deal before and never had one break, and I supposed the start was from those teeth.

75 Quest. How long had you known of teeth being inserted in circular saws previous to that?

Ans. There had been an experiment tried in circular saws in some saw in the same mill, but before I had become in possession of it, by Mr. Emerson, which was not successful, on a different principle; I could not tell exactly the same principle; the first I ever knew of; that, perhaps, was two years before. I could not be certain.

Quest. Which Emerson?

Ans. The one that used to be a partner of Spaulding—J. E. Emerson. I think at the time he put these teeth in he was stopping over at Forest Hill, or over there some place.

Quest. When was that experiment made first by him?

Ans. I do not know. I was not at the mill.

Quest. When did the idea first occur to you of inserting teeth on circular lines?

76 Ans. Well, I think it was about a day or two before I started to Sacramento to see Mr. Spaulding.

Quest. Are you certain you thought of it before Mr. Spaulding spoke to you about it?

Answer. Shortly after I went into the shop.

Quest. Are you certain he did not tell you at that time that he had already inserted it in two saws on circular lines.

Ans. Mr. Spaulding never told me that he had at that time inserted teeth on that principle in any saws, to my knowledge.

Quest. Are you certain he did not?

Ans. I am certain he did not.

Quest. What machinery did he speak about?

Ans. I think from the way he spoke, I think he meant the machinery in which he cuts the groove in this tooth.

Quest. Did he have any machinery there except a hammer, cold-chisel, and file?

77 Ans. I could not say. I did not look around the shop enough to know.

Quest. Did you see any other.

Ans. I presume that there was other machinery there; I could not tell anything about it; if I went in a machine shop, I could not tell because I am no machinist; I could not tell anything about it.

Quest. Didn't he speak of changing his patterns instead of the machinery?

Ans. I think not.

Quest. How long have you been acquainted with circular saws in sawmills.

Ans. I think about the first ever I had any experience in a circular saw was about 1854. I guess it might have been as late as 1855, but I think it was in 1854.

The court:

Quest. Did that include your first experience in saws and saw-mills too?

78 Ans. No. I commenced work in saw-mills when I first come to the State in 1852, but that was not circular saws, and that time I was not sawing; I was running the engine and had some experience myself in sawing.

Quest. Did you ever insert a tooth yourself in circular lines?

Ans. I did not.

Re-direct examination by Mr. McAllister:

Quest. Where do you reside now?

Ans. I reside in Georgetown, El Dorado County, California.

79 WILLIAM M. RATCLIFF, called for plaintiff, sworn, examined.

By Mr. Wheaton:

Quest. Mr. Ratcliff, what is your name, age, residence, and occupation?

Ans. William M. Ratcliff, and I am a resident of Sacramento City; my occupation is blacksmith and ship-work.

Quest. Your age?

Answer. My age is 44 in January.

Quest. How long have you been a resident of Sacramento?

Answer. I have been a resident of Sacramento since 1850, off and on.

Quest. Do you know the plaintiff in this case, N. W. Spaulding; and, if so, how long have you known him?

Ans. I have known N. W. Spaulding since about the first of December, 1858.

80 Quest. What was he doing in the summer of 1858, as far as you know?

Ans. What was I doing?

Quest. No; the plaintiff.

Ans. I did not know him in the summer of 1858. It was December, 1858, I got acquainted with him.

Quest. Oh, yes; well, what was he doing from that time forward?

Ans. He came there to my place and rented the shop—came to the establishment and rented a part of my shop to manufacture—for putting in teeth of saws.

Quest. What form of teeth did they put in saws at first?

Ans. They put in the square-bottom tooth; that shape, (showing.)

Quest. How long did Mr. Emerson work in the shop, if at all?

Ans. Mr. Emerson worked in the shop about two months.

81 Ques. From what time?

Ans. From the first of December through December and January, off and on.

Quest. Which years?

Ans. In December they commenced their business. They made up a lot of teeth and went through the country to put them into mills to establish their business. They had no business to start with, but they made up a lot of teeth in my shop, and started out on a trip, and was gone some three or 4 weeks.

Quest. What time did Mr. Emerson quit work on saws?

Ans. I think Mr. Emerson quit work on saws about the latter part of January, 1859.

Quest. What did Mr. Spaulding do after that?

Ans. Mr. Spaulding continued the business in partnership with Mr. Emerson till about the latter part of December, 1859.

Quest. How many men were working in the shop during the
82 summer of 1859, after Mr. Emerson quit, were there at saws?

Ans. At saws?

Quest. Yes, sir.

Answer. After Emerson quit?

Quest. Yes, sir.

Ans. There was no one but Mr. Spaulding and Mr. Hansford that was hired regularly.

Quest. When did you first see a saw-tooth inserted in a socket upon circular lines?

Ans. It was in the fall of 1859—that is, in a saw-plate—not in a circular saw, but in a piece of saw-plate?

Quest. How many different saw-teeth were inserted in that piece of saw-plate?

Ans. Two teeth, sir.

Quest. What were their forms?

Ans. One was the square-bottom tooth, and the other was this shaped tooth (showing) put in a piece of steel, it might been 18 or 20 inches long. It was a piece of an up-and-down saw that was taken.

83 Quest. Who put the tooth in?

Ans. Mr. Spaulding.

Quest. Did he tell you at the time, or did you have any conversation with him at the time, as to what they were put in for?

Ans. He did, sir.

Mr. McALLISTER. I suppose we will reserve the same objection again.

The COURT. Yes, sir.

Mr. Wheaton:

Quest. What did he then tell you it was for?

Answer. The object in putting teeth in that way was that their business was almost a failure owing to their saws cracking in the back corner, so much so that it was almost impossible for them to get anything to do, and Mr. Spaulding then commenced to experiment on, and get something up to protect the saw.

Quest. How many times did he talk with you about that during the fall of 1859?

84 Ans. He talked with me very often indeed.

Quest. Do you know whether or not Mr. Spaulding talked with others, people generally, about the same thing?

Ans. Well, I don't think he did. It was few. I do not think but very few that he spoke to about it.

Quest. What did you see him do, if anything, with those two teeth that you speak of?

Ans. What did he do?

Quest. Yes, sir; what experiments, if any, did he make with them?

Answer. He took and screwed it into a vise, and he took a hammer and hit on the point of the tooth and drove it right back. This tooth here (showing) he would take right off there. The other (showing) he would bend the point right back, and did not start it.

Quest. How early did he first speak to you about inserting teeth on circular lines to prevent the plate from cracking? Fix it as near as you can.

85 Mr. McALLISTER. An exception will be entered to this in favor of defendant.

The COURT. Yes, sir.

Ans. It was about the middle of September, 1859.

Mr. Wheaton:

Quest. When did Emerson cease to be a partner there?

Ans. He ceased to be a partner there about Christmas, 1859.

Quest. What was the occasion of his ceasing business?

Mr. McALLISTER. I object to that as irrelevant.

The COURT. I do not see the relevancy, Mr. Wheaton.

Mr. WHEATON. It don't have any particular bearing, only to show if he sold out or not.

The COURT. If you have nothing to say in support of it, the question is overruled.

Mr. Wheaton:

Question. When did Mr. Emerson leave the State?

86 Ans. He left the State about the first of January, 1860.

Cross-examination by Mr. McAllister:

Quest. Mr. Emerson and Spaulding hired the shop of you together. I understand you to say?

Answer. They did, sir.

Question. Can you state precisely the date the lease commenced, or did they take a part of the whole of the shop?

Ans. Only a part. It commenced the first of December, 1858.

Quest. You are sure of that date as the commencement?

Ans. I am.

Ques. Have you any memoranda about that date, or is it just your recollection?

Ans. My recollection and other things.

87 Quest. Well, what were the terms, Mr. Ratcliffe?

Ans. The terms that they leased it on?

Ques. Yes.

Ans. They leased it from month to month for $18 a month.

Quest. And had the privilege of using your tools?

Ans. Yes, sir.

Quest. You also continued your work in the same shop?

Ans. Yes, sir; I worked in the same shop.

Quest. What was the name of that firm?

Ans. At that time?

Quest. Yes, sir.

Ans. It was Emerson and Spaulding.

Quest. Who was the older man, Emerson or Spaulding?

Ans. Who was the main man?

88 Quest. Who was the older man of the two, Emerson or Spaulding?

Ans. Well, I think Emerson was a little the oldest man.

Quest. Do you know what Emerson's business had been previous to that time; where he had been living?

Ans. No, sir; I do not.

Quest. Did you have any knowledge of Mr. Emerson previous to this lease of a part of your shop to them?

Ans. Any what?

Quest. Any previous acquaintance with Emerson?

Ans. No, sir; I had not.

Quest. Whom did you first get acquainted with, Emerson or Spaulding?

Ans. Which did I lease the shop to?

Quest. No. Which did you first become acquainted with; which of the two?

89 Ans. Well, I think they both came there to my shop together.

Quest. Was Emerson a mechanic?

Ans. Yes, sir; professed to be.

Quest. Do you know whether Spaulding had previously been the employee of Emerson?

Ans. I think Mr. Spaulding had been working as a shipwright up in Amador County the time he came down there.

Quest. You do not know whether he had been in the employ of Mr. Emerson?

Ans. No, sir; I do not.

Mr. FELTON. You do not mean a shipwright in Amador County?

Ans. No, sir; not a shipwright, but a millwright.

Mr. MCALLISTER. It is not a commercial centre, I believe.

Mr. FELTON. No.

90 Mr. McAllister:

Quest. Well, you did not know anything about the previous relations between Emerson and Spaulding?

The COURT. He has not been asked that.

Mr. MCALLISTER. I asked him, and he seemed to answer it.

You have known Mr. Spaulding ever since that date?

Ans. Yes, sir.

Quest. You have seen him frequently?

Ans. Well, yes. I saw him up from that time. I saw him there in my shop till, I believe, the spring of 1861.

Quest. Did he remain in your shop until the spring of 1861?

Ans. Yes, sir.

Quest. You were working there also?

Ans. I did.

The court:

Quest. Who remained in the shop?

91 Ans. Spaulding.

Mr. McAllister:

Quest. What did he do then in the spring of 1861?

In 1864 he went down on Front street or below me.

Quest. Well, did he take a shop of his own?

Ans. Yes, he rented a shop down on Front street from a man by the name of Anderson.

Quest. You were always on good terms with him while in Sacramento?

Ans. We have always been on good terms, sir.

Quest. Were you at all interested in this manufacture of his?

Ans. Am I what?

Quest. Were you at all interested with Mr. Spaulding in the manufacture of these teeth?

Ans. I was not.

92 Quest. At no time?

Ans. No, sir; I never was engaged in it all.

Quest. Nor at the present time?

Ans. No, sir; I am not.

Quest. What has been your occupation since 1861, Mr. Ratcliff?

Ans. Since 1861?

Quest. Yes, sir.

Ans. I carried on my shop in Sacramento till four years ago last July, and at that time I rented out my shop, and went to quartz-mining till last February, I came down from the mountains.

Quest. You have been quartz-mining ever since, have you?

Ans. No, sir; I came down from the mountains, and started in, and put up a building on the very spot where the saw business was started, No. 3 Front street.

93 Quest. You still live in Sacramento?

Ans. Yes, sir; live there on the very spot of ground that this saw business started on.

Quest. How do you fix the date when these two teeth were inserted into this piece of steel, and this experiment made by Mr. Spaulding? Have you any means of fixing that date?

Ans. Any means?

Quest. Any means of fixing that date besides your mere recollection?

Ans. Nothing more than my memory, which is generally pretty good on general things.

Quest. Well, what is the date you fix?

Ans. Sir?

Quest. What is the date that you fix in which Mr. Spaulding inserted these two teeth, one a square base tooth, and the other on a circular base or rounded corners, in a piece of steel?

94 Ans. What is the exact date? I could not put the exact date, sir.

Quest. How close can you come to it?

Ans. Well, he commenced doing this—attending to this about the middle of September, 1859.

Quest. Well, so far as you understand, his making this experiment with a hammer?

Ans. In regard to the two teeth?

Quest. Yes.

Answer. Yes, sir; well, it was somewhere about that time; it might have been or a little later. He was experimenting on various things.

Quest. Well, now, what I want to get at is this: How can you recollect ten years back the particular month when an experiment of that kind is made; when a man is leasing your shop? Is there anything particularly to call your attention to the dates?

95 Ans. Well, there is a great many things that would bring it to my memory. For instance, my memory would be as fresh of coming into San Francisco on the sixth day of April, 1850.

Quest. That is, you recollect the day you arrived in this city?

Ans. Yes, sir; I arrived in the Gold Hunter, and as a general thing my memory is pretty good.

Quest. Was there anything about this circumstance to cause this date to be fixed in your mind?

Answer. In regard to this?

Quest. Yes.

Ans. Yes, sir.

Quest. What was it?

Ans. Well, sir, I was engaged with Emerson in a certain patent that he was getting up, and was carrying on business in these patent picks.

Quest. What?

Ans. I say patent picks that Emerson got up here, and was manufacturing.

96 Testimony of N. W. SPAULDING, the plaintiff:

At this time, January 1st, 1860, I commenced inserting them on the principle I now insert them on, circular lines forming the socket circular line (another socket and tooth handed to the witness) in that form.

Mr. Wheaton:

Quest. What was the effect in forming the socket on circular lines?

Ans. To prevent the plate from breaking or cracking from the angles which was formed by the square teeth.

Quest. When did you first find out it would do that, or, rather, how did you know it would prevent the plate from cracking by putting them in on circular lines?

Ans. By experiments.

Quest. Just explain more fully that liability to crack, and what experiments, if any, you made to try to overcome that liability.

Ans. I found that the business in which I was engaged was liable soon to prove no business at all except there was something done
97 to prevent the use of these teeth in the plates from breaking the plate; and seeing and feeling the necessity of something being resorted to to accomplish that, and I first took a piece of steel 18 or 20 inches long, and put two teeth on this plan, one square, the other in shape similar to that, fastened the piece of steel in a vise, and took a hammer and pounded upon these teeth to see how much more resistance one would stand than the other. I very readily broke the square one, while the other would not yield at all; I could not break the plate in that experiment.

Quest. That was the first experiment you made by way of changing the form of the socket?

Ans. That was the first experiment I made; I had previous to that made something very similar to that, very near the same shape and form, off and on, to see how it looked, or whether any circles were sufficiently large to accomplish the purpose for which I was making them.

Quest. When did you first conceive the idea of inserting upon circular lines?

98 Ans. I first conceived the idea in about or soon after the State fair in Sacramento, in 1859—very shortly after that; I have never expected to have that question to answer; I have not particularly taxed my memory with the exact time.

Quest. Go on and make a full statement of your further experiments, if any; say what you did in regard to inserting teeth on circular lines.

Answer. I had, prior to that time—to my buying of him out—and just after tried to induce parties to allow me to try the experiment in their saws, not having the means myself to make the experiments that I would like to; and soon after buying him out, on the first or near the first of January, 1860, I put teeth in in this manner for a man by the name of Churchill; got his consent to do so. I put them in in this manner, which was the first saw I put the teeth in; and I have continued from that time until this in putting them into saws upon circular lines. After trying the experiment, and finding it successful, I applied for a patent.

99 Quest. Was Churchill the first man from whom you requested the privilege of putting teeth on circular lines into his saw?

Answer. No, sir; I cannot particularly recollect whom I importuned to allow me to try the experiment; but I recollect frequently doing so with different customers; but him I succeeded in convincing that it would be, perhaps, an improvement. I told him if it was not successful

and did'nt work as well as the other, I would be responsible for the saw.

Quest. Who was the second man you put in saw-teeth on circular lines for?

Answer. Messenger and Emsden, who had a mill at Sly Park—the firm of Messenger and Emsden.

Quest. Where did you say these parties were?

Ans. They owned a mill in El Dorado County, known, I think, as Sly Park Mills.

Quest. Who next did you put in saw-teeth for in circular lines?

Ans. A man by the name of H. Sornberger.

Quest. Where was his mill?

Ans. In El Dorado County, at Georgetown.

Quest. Right at Georgetown, or near to it?

Ans. Near Georgetown; a few miles distant.

100 WILLIAM HANSFORD, called for the plaintiff, sworn, examined.

By Mr. Wheaton:

Quest. Give your name and residence and age?

Ans. William Hansford; residence, Harveysburg, Fountain County, Indiana.

Quest. What is your age?

Ans. I am in my 51st year.

Quest. Where were you in the summer of 1859?

Ans. I was in Sacramento City.

Quest. What were you doing?

Ans. Working for Mr. Spaulding and Mr. Emerson.

Quest. The plaintiff in this case?

Ans. Yes, sir.

Quest. What Emerson was it?

Ans. We usually call him Jim Emerson; J. E. Emerson is the man.

101 Quest. How long did you continue to work for Spaulding and Emerson?

Ans. I cannot tell the exact days of the month, but I commenced in January.

The court:

Quest. 1859?

Ans. Yes, sir; January, and continued to work for them until Emerson sold out to Mr. Spaulding.

Mr. McAllister:

Quest. You commenced to work there January, 1859; down to what date did you say?

Answer. To about Christmas.

Quest. 1859?

Answer. 1859; yes, sir.

The COURT. When Mr. Emerson sold out to Mr. Spaulding.

Mr. Wheaton:

Quest. What did you do after that?

Ans. I continued to work for Mr. Spaulding.

102 Quest. For how long?

Answer. Until going to the States, about three years ago; I believe between six and seven years.

Quest. What business were you engaged in when working for Spaulding and Emerson, and afterwards for Mr. Spaulding?

Ans. I was making and finishing and inserting saw-teeth into saws.
Quest. What were the shape of the teeth that were inserted?
Answer. At what time?
Quest. Well, during the time you worked for them?
Answer. While I worked for Mr. Spaulding and Mr. Emerson we inserted the teeth on the plan that we usually call the square bottoms. That (showing) was the kind of teeth that I was engaged in forging and inserting, what we call a square-bottom tooth.

Mr. Wheaton:

Question. When did you first see that identical pattern you
103 hold in your hands?
Ans. I recognize this as the pattern we made there in the shop during that year.

Mr. McAllister:

Question. During the year 1859?
Ans. Yes, sir; January, 1859, till about Christmas, I think, was the time of Mr. Emerson's selling out; I don't know the day of the month.

Mr. Wheaton:

Quest. When did you cease to insert teeth in that form—square corners?
Ans. We stopped inserting teeth after this fashion, except where we furnished duplicate teeth, so soon as Mr. Emerson left for the States.
Quest. When was that?
Ans. I cannot give you the day, but I think it was—I am quite certain that it was—the steamer of the first of January, or about
104 the first, for I do not now remember the day the steamer sailed.
Question. Well, can you tell for certain whether it was before the middle of January or not?
Ans. It was the steamer of the 1st of January. I would say that now I do not know that it was the first or the second day. We generally say the steamer of the 1st or 15th.

The court:

Quest. The first steamer of the month?
Ans. Yes, sir; he could not go on any other steamer.

Mr. Wheaton:

Quest. When did you first see a tooth inserted with socket made on circular lines?
Ans. Have you reference to inserting it into a saw?
Quest. No, sir. When did you first see a saw-tooth put in a socket on circular lines, no matter where the socket was?
Ans. The first circular teeth that I ever saw inserted in a piece
105 of saw-plate, as we use the expression, I could not give you the exact date; but it was between the State fair, at Sacramento, which I think was in September—it was some time during that fall. I cannot state the month exactly; I should say that my present recollection is that it would be about the middle of the fall.
Quest. Do you know whether or not it was prior to Mr. Spaulding's buying Emerson out of the business?
Ans. It was.
Quest. How long prior, as near as you can recollect?
Ans. Well, I would state the time as October, 1859. He went away in January, 1860.

Quest. Why do you know it was prior to his buying Emerson out?

Ans. Well, the most essential thing in the remembrance of that is, I suppose, owing to some remarks I made at the time about Mr. Emerson.

106 Mr. Wheaton:

Quest. Who put that tooth in that piece of saw-plate on a circular line?

Ans. Mr. Spaulding.

Quest. State fully all in connection with that.

Ans. The tooth was inserted. It was the same width and a similar form to this (showing) but not finished up nicely at all; put into a piece of saw, as I understood, as a specimen, or, in other words, to see how the thing would look.

Quest. What did Mr. Spaulding say at that time his object was in doing it?

Mr. McALLISTER. That we will reserve the same objection to as we did to the other testimony, as incompetent and immaterial.

Mr. Wheaton:

Quest. Just answer the question.

Ans. How is that, sir?

Quest. Answer the question.

107 Ans. Put the question again, please.

Quest. What did Mr. Spaulding tell you at that time his object was in putting it in on circular lines?

Ans. To prevent the saw-plate from breaking, cracking.

Quest. State fully what was said in regard to that at that time.

Ans. Do you mean the conversation that Mr. Spaulding used in reference to this socket to me?

Quest. Certainly.

The COURT. Yes, that is what he means.

Ans. Well, the conversation, the tenor of it, was that he wanted to obviate the difficulty that had heretofore existed in the saws we had been working on the past year about. They were breaking a great many of them; they would come back to the shop broken. We frequently had to fix them after they were broken. Some of them
108 at least were rendered entirely useless. My remembrance is that there was a probability of the business entirely going down if there was not some remedy found to prevent these saws from breaking, and this (showing) was the remedy proposed to obviate it, the introduction of the circular line.

Mr. Wheaton:

Quest. Do you recollect whose saw those teeth were first put in on circular lines?

Ans. I do.

Quest. Who was it?

Ans. A Mr. Churchill.

Quest. Do you recollect who the second one was for?

Ans. I do, sir.

Quest. Who was it?

Ans. A Mr. Amsden. I think he had a partner with him; who, I do not now remember.

Mr. McAllister:

Quest. What is the name? I didn't catch it.

109 Ans. Amsden, I think his name is, sir.

Mr. Wheaton:

Quest. Were you acquainted with Mr. Amsden?

Ans. Quite well, sir.

Quest. Did you see him at the time?

Ans. I did; he was in and about the shop a great deal. He worked for Mr. Hunt, just across the river there; and at last he worked in the shop with me quite a number of months—years, perhaps.

Quest. Who was the third party they inserted teeth for in circular lines?

Ans. I cannot say that my remembrance is clear on that.

Quest. When were the teeth put into Churchill's saw.

Ans. They were put in immediately after Mr. Emerson went to the States. Mr. Spaulding came back from San Francisco, and when he came back, after seeing Mr. Emerson off, we then went to work and inserted the teeth in this saw.

110 Quest. Did you ever hear Mr. Spaulding object to any party putting those teeth in on circular lines?

Ans. I did sir.

Quest. When was that?

Answer. I cannot give you the date.

Quest. What reasons, if any, did he give for his objection.

Mr. McALLISTER. That we also object to, and note an exception.

The COURT. Well, sir.

Mr. WHEATON. The court says, go on.

The COURT, (to the witness.) You are asked if you ever heard Mr. Spaulding object to inserting teeth on circular lines, and I believe you said yes; and the question is now, what reason he gave.

Answer. I could not give you the identical language of Mr. Spaulding, but I can give the substance of it.

111 Mr. Wheaton:

Quest. Give us that.

Ans. I do not remember the exact words, it occurred so many years ago. The substance of it was this: that he had already had teeth in two saws, or to that effect; that he didn't want to go to work and fit up a set of standard patterns for this lot.

Mr. McALLISTER. I do not hear what you are saying, Mr. Hansford.

The COURT, (to the witness.) Just commence again.

The WITNESS. His reasons was that he already had teeth rounding, after this new style of tooth, and would be anxious to know whether it would become a success; and the other reason, he had not patterns. Those first teeth we put in, we put them in as a mechanic would say, by guess-work, filed the slot for it in the saw-plate, and finished each tooth with a file, and inserted it, and as a consequence they would not be duplicates; one tooth would not fit in another socket saw-plate.

112 Mr. Wheaton:

Question. Well, go on.

Ans. Not having the patterns, and already having two saws running, or, I had fixed two saws after this time, he wished to see the result of it, whether or not he might have to make this circle larger. If that circle would answer the purpose, we would not make it larger. As Mr. Spaulding and myself had frequently talked this matter over, I think our first conversation in relation to this circle was to have an entire cir-

cle on the bottom. This plan he adopted, and wanted to see the result of it before making a set of patterns.

Quest. About what time was that conversation?

Ans. It must have been somewhere in February or March, 1860, being after we had fixed these two saws, and we fixed them immediately after Mr. Emerson went to the States, or soon after.

The COURT, (to the witness.) Speak louder; you are not heard, Mr. Hansford.

113 The WITNESS. The two saws.

Mr. Wheaton:

Quest. What became finally of the saw, after he objected to putting the teeth in on circular lines? What was finally done with the saw in the shop?

Ans. My remembrance is that there was teeth afterwards put in on this plan, (showing.)

Quest. Can you tell how many saws he had put teeth in before he put teeth in this particular saw on circular lines?

Ans. He had put them in two; that I am certain of.

Quest. What machinery was there in the shop, at that time, to fix saws with?

Answer. Mr. Spaulding had not any machinery of his own; we was working with Mr. Ratcliffe's tools, excepting our files and hammers, and some little chisels. We used Mr. Ratcliffe's press for cutting out.

Mr. McAllister:

Quest. How is that name? Ratcliffe?

114 Ans. Yes, sir; Mr. Ratcliffe is here and can give his name. We was using Mr. Ratcliffe's shears to cut the saws into shape to get the teeth in, and also this punch for cutting this slot out, which we done by machinery, but we had no tools to cut teeth with only as I forged them on the anvil; I then took them to the vice and filed out this slot with a file; so our tools were very limited.

115 And the evidence further tended to show that the circular saws, with detachable teeth inserted therein, as shown in the models thereof exhibited in evidence and described in the letters-patent hereinbefore marked and hereby referred to as Exhibits "C" and "D," and which are charged in the complaint in this action to be infringements on the rights of the plaintiff, Nathan W. Spaulding, were and are manufactured, used, and sold to others to be used under and by virtue of said letters-patent hereinbefore marked respectively "C" and "D."

Evidence, to which there was no opposing testimony, was introduced during the trial, tending to show that prior to January, A. D. 1860, the use of detachable teeth in circular saws had never been extensive, but such use had been generally condemned, because the saw-plates in which the teeth were inserted usually cracked from the sockets which held the teeth; but that since January, 1860, the use of detachable teeth inserted in sockets in saws according to the form and description contained in Exhibit "A" had become general; that detachable-tooth saws pos-

116 sessed many advantages over solid-tooth saws; and that the use of circular lines in forming the sockets prevented the saw-plate from cracking.

All of which foregoing facts the said evidence admitted to the jury as aforesaid tended to establish and prove.

Thereupon, on the close of said evidence, the court, among other things, instructed and charged the jury thereon as follows, to wit:

A. Another question arising in this case is the patentability, if I may so speak, of the plaintiff's alleged invention. This is a question of law, and I charge you as a matter of law that it is patentable. It is a change in the form of inserting teeth, so as to produce a new and useful result. Prior to this invention, so far as is ascertained or shown, detachable teeth were inserted upon square lines; the recess in which the tooth was inserted being a right angle, and the tooth, of course, corresponding to the recess and having square corners. The difficulty in the working of these teeth was that the pressure was thrown upon a single point in the recess—the back right angle, resulting generally in a
117 crack in the saw-plate. This, it is *is* apparent to any one was a great objection to the use of the detachable tooth, and it is also apparent that the detachable tooth itself, if it could be made to work, was a great advantage. Now, the idea of the invention of this plaintiff, supposing that he invented this mode of inserting teeth, was the application, it is said, of a well-known rule or law of nature—a mechanical property of matter; but it was the application to this particular art in a manner never applied before, and producing a new and useful result, and it is patentable. Upon that point you will take the law as the court gives it to you, that it is patentable.

To which portion of the charge, counsel for defendant did then and there duly except, and tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

And the court further charged the jury as follows:

B. The defendant seeks to show to you that he has made an
118 improved saw, or an improved tooth, by his mode of inserting it. That is an immaterial question. He may have improved very much upon the plaintiff's improvements or invention; but if he has substantially used also in that improvement the plaintiff's improvement, however much he may have added to it, he has infringed upon it, and he cannot use his improvement, if it includes the plaintiff's, without his license or consent, or if he does, it is just as much an infringement upon his patent as if there were no additional improvement in his mode of inserting teeth whatever.

To which portion of the charge counsel for the defendant did then and there duly except, and tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

And the court further charged the jury as follows:

C. The plaintiff in his complaint claims to have invented and obtained a patent for inserting detachable teeth upon circular lines; and
119 these lines may include the whole surface upon which the tooth rests against the saw-plate or any portion of it. He leaves that for the mechanic to determine in practice as may be most convenient or economical, or for any other mere mechanical considerations; but his invention or claim is to have discovered that by inserting teeth upon circular lines, greater or less, rather than square lines, he will prevent the saw from cracking. Now, any improvement of any tooth, which is inserted in a saw in circular lines, so as to prevent the cracking of the saw-plate, is an infringement upon the plaintiff's patent; it makes no

difference what other improvements may be introduced by the addition of the defendant.

To which portion of the charge counsel for defendant did then and there duly except, and tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

And the court further charged the jury as follows:

120 D. The defendant here claims that his patent, or those under whom he claims, so far as I have been able to read it—and I state this for the purpose of suggesting to you whether this claim is now put forth for the first time as a defense to this action, or whether it was contemporaneous with the granting of the patent—the defendant here claims that his patent is an improvement made to prevent the cracking of the saw, but I do not find in the defendant's patents, or either of them, any claim to having discovered a mode of inserting teeth to prevent the cracking of the saw, except in one expression, which I do not take to be the danger that the plaintiff contended would be prevented by his invention, but throughout the defendant's patent it is alleged that he has found a new and improved mode of inserting teeth, so as to keep them in; so as to prevent them from flying out; so as to make them firm and keep them there. In the first patent it is mentioned at the close of the claim, also, as one of the benefits of the improvements of that tooth, that it is not necessary to be driven in—that it is not
121 necessary to drive it in the Emerson patent; whereas, in the case of other teeth, it is necessary to drive them in, and, by so doing, they are liable to spring the saw; but there is no clause in the patent that I can see that he has found a mode of preventing the cracking of the saw; and if he had—if he used the idea, mode of operation, or principle of the plaintiff's invention—then he has infringed upon it, whatever else he may have done, and he is liable to damages in this action.

To which portion of the charge, counsel for defendant did then and there duly except, and tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

And the court further charged the jury as follows:

E. You must take into consideration this principle, that a mere change of form is no improvement, and a larger circle is no
122 improvement over a smaller, if it produces the same result. If the larger circle prevents cracking, that is the same result, and there is no difference in the invention; besides, the plaintiff claims the use of circular lines, large or small, greater or less, so far as they can be used to prevent the saw from cracking, not for other purposes. If you should find that these teeth (Emerson's patent) are substantially identical with plaintiff's in the particular mentioned—that is, in the circular lines—thereby preventing the saw from cracking, of course, there is an infringement of the plaintiff's patent; if they are not so, then your verdict will be for the defendant.

To which portion of the charge, counsel for defendent did then and there duly except and tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

I have been asked to give you some instructions by the counsel in the case, which I will give you in addition to what I have already said. The first I give you, asked for by defendants, as follows:

123 1. "The letters-patent of the plaintiff are for a combination for

a particular result, of which there can be no infringement by the defendant unless he use all the elements of the combination."

I give you that, with this addition, or in connection with what I have said that the element of the plaintiff's invention, so to speak—the word combination is not a good word—is the circular line, and that is all. If the defendant uses that for that purpose, it is an infringement.

Whereupon counsel for the defendant did then and there except to the refusal of the court to give the instruction as asked, and did furthermore then and there except to the court's modification of said instruction, and to the giving of said instruction so modified to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The court further proceeded:

The next instruction asked for by defendant that I give, is—

124 2nd. "The defendant cannot, by mere surmise, conjecture, or supposal, that his saw is an infringement on plaintiff's patent, be found guilty of infringement; but the jury must be satisfied, from the preponderance of the evidence, oral and documentary, and the saws themselves as appearing here in court, that the saw of the defendant is substantially the same in form and principle as the saw covered by the patent of the plaintiff, before they find him guilty of infringement."

There is one expression in this instruction that I might qualify, lest it may not be correctly understood, "That the saw of the defendant is substantially the same in form and principle as the saw of the plaintiff,' so far as it is alleged to coincide with that of the plaintiff's; it may differ from the plaintiff's saw by having improvements, but if, in the parts in which the plaintiff claims to have made an invention, it is substantially the same as his, then it is an infringement, otherwise not.

Whereupon counsel for the defendant did then and there except

125 to the refusal of the court to give the instruction as asked, and did furthermore then and there except to the court's modification of said instruction, and to the giving of said instruction so modified to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

One instruction asked for by the plaintiff, and given by the court, is this:

3. "If the jury believe, from the evidence, that the defendant has, prior to the commencement of this suit, and since the tenth day of July, 1868, sold or offered for sale saws or saw-plates containing the plaintiff's invention, then he has infringed the plaintiff's patent, and is liable in this action; provided that the jury also believe that forming the said sockets or recesses, as described in plaintiff's (patent,) was an improvement on saws and saw-plates, and that the plaintiff was the first and original discoverer or inventor thereof."

126 Whereupon counsel for the defendant did then and there except to the giving of the said instruction by the court to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

4. Another instruction asked by plaintiff, and given by the court to the jury, is this:

"If the defendant's saws or saw-plates have contained sockets or recesses for the insertion of removable teeth, and such sockets or recesses been formed on circular lines, and for that reason rendered less liable to split or crack, then defendant's saws contained the plaintiff's alleged invention."

Whereupon counsel for the defendant did then and there except to the giving of the said instruction by the court to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

127 The defendant then and there asked the court to give to the jury the following instruction, namely:

5. "The fact that the alleged invention in the letters-patent of the plaintiff described as patentable, or the subject of a patent, and that the court so instructs the jury, are not enough to sustain the validity of the plaintiff's patent; to support the validity of that patent, the alleged invention therein described must not only be patentable, or the subject of a patent, but it must also be new and useful, and the patentee therein must be the original and first inventor thereof, and of these additional essential facts the jury are the sole and exclusive judges."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

128 The defendant also then and there asked the court to give to the jury the following instruction, namely:

6. "Distribution of the pressure bearing on the detachable teeth of circular saws, so as to secure its bearing equally on the saw-plate, is a mere result, not the subject of a patent; and the letters-patent of the plaintiff only secure to him the exclusive right of thus effecting such distribution in the detachable teeth of circular saws of the form described in the diagram accompanying the specifications attached to the letters-patent, and in such other forms of detachable teeth as are substantially the same."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

129 The defendant also then and there asked the court to give to the jury the following instruction, namely:

7. "The diagrams accompanying the specifications attached to the plaintiff's letters-patent indicate the form and nature of the invention that the plaintiff desired to secure by letters patent, and if the detachable teeth used in the defendant's saws are not substantially the same and do not operate in substantially the same principle, they are no infringement upon the plaintiff's rights."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

130 8. "Change of form in detachable teeth, and the manner of their insertion in the saw-plates, productive of a new and useful result, is evidence that they are not the same; and if such change be not merely formal in the present case, of which the jury are the sole and exclusive judges, then there is no infringement, and they will find for the defendant."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

9. "The invention claimed by the plaintiff is but an improvement on a known machine by a mere change of form or combination of parts, and the plaintiff cannot treat another as an infringer who has
131 improved the original machine by use of a different form or combination performing the same functions. The inventor of the first improvement cannot invoke the doctrine of equivalents to suppress all other improvements which are not colorable invasions of the first."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

Defendant also then and there asked the court to give to the jury the following instruction, namely:

10. "Where form of the teeth is of the essence of the alleged invention, or of the combination involved in the alleged invention, there is no infringement unless the defendant use substantially the same form described in the letters-patent."

132 Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

11. "Unless the detachable teeth of the defendant are substantially the same as those described in the plaintiff's letters-patent, and operate substantially in the same manner, they constitute no infringement on the rights of the plaintiff."

Which instruction the court then and there refused to give to the jury; and thereupon defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the
133, 134 same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

12. "The subsequent letters-patent given in evidence on the part of the defendant are prima-facie evidence that the saws and saw-teeth of defendant, if made thereunder, are no intringement on the rights of the plaintiff."

Which instruction the court then and there refused to give to the jury; and thereupon defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instructions, namely:

13. "A patent for a machine, method, or particular process of doing a thing secures to the patentee the exclusive right only to the
135 machine, method, or particular process described therein, and such as are mechanical equivalents therefor, or substantially the same. But mechanical equivalents of the machine, method, or process described in the letters-patent do not become such in law merely from the fact that they produce the same result or effect as does the machine, method, or particular process described in the patent; for the reason that every person is at liberty to accomplish the same effect or result accomplished by the patented machine or particular process by any means that do not infringe upon the machine, method, or process described in the letters-patent. All means of accomplishing the same result are in this general sense equivalent. When the terms 'mechanical equivalents' or 'means substantially the same' are used in this connection, what is meant thereby is to exclude merely formal differences, or such variations of form or means *of* mechanics ordinarily skilled in the business would commonly use for the same purpose without exercising any
136 inventive power on their part in the use of such change of form or means."

Which instruction the court then and there refused to give to the jury; and thereupon defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction:

14. "If the jury believe from the evidence that, prior to the alleged invention of the plaintiff, detachable teeth inserted in circular saws, with square bases, were in use and well known; and that the rounding of angular points or corners was a customary and well-known device of mechanics skilled in the business of making or mending saws, and used for the purpose of distributing the pressure bearing or to bear on such angular points or corners, and arresting or preventing further
137 fracture of the saw-plate; and that this device was used in rounding the angular corners at the bases of detachable teeth inserted, with square bases, in circular saws, for the purpose of distributing the strain or pressure bearing on such points, and preventing or arresting fracture in the saw-plate; and that the use of such device, in this manner and for this purpose, would be and was used by mechanics ordinarily skilled in the business, and did not involve inventive power, but only mechanical

skill, then the plaintiff was not the original and first inventor of his alleged invention, and they will find for the defendant."

Which instruction the court then and there refused to give to the jury; and thereupon defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

138 The defendant also then and there asked the court to give to the jury the following instruction, namely:

15. "If the jury believe from the evidence that, prior to the alleged invention of the plaintiff, the witness Sornberger used a circular saw having detachable teeth inserted on square or rectangular bases; that in consequence of the bases of the teeth of such saw being square or rectangular at their bases, he learned from his experience they cracked the saw-plate, and he for that reason determined to discontinue their use, and in their place have the teeth of his circular saw rounded at their bases, in order to avoid fracturing the saw-plate; and that, after having determined so to do, he went to Spaulding, and requested Spaulding to round off the corners or angles at the bases of the detachable teeth of his circular saw for the purpose of preventing their fracturing or cracking the saw-plate of his circular saw, and so informed Spaulding, and Spaulding had not prior thereto discovered this
139 mode of protecting the saw-plate; and that after Spaulding mended Sornberger's saw in the manner and for the purpose already stated; and that this was substantially the same invention claimed in the patent of the plaintiff, then Spaulding was not the original and first inventor of the alleged invention, and the jury will find for the defendant."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

16. "If a mechanic of ordinary skill in the art of saw-making could not, by the aid and directions in the specifications and diagram of Spaulding's patent, manufacture or make the saw of the defend-
140 ant without, on his (the mechanic's) part, exercising the power of invention, then the alleged inventions described in the letters-patent of the plaintiff, and those under which the saws of the defendant are made, are not substantially the same, and there is no infringement on the part of the defendant."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

17. "The fact of the plaintiff being the first and original inventor of his alleged invention, and the fact of its infringement, are purely questions of fact for the jury to find from the evidence; and the fact

141 that the defendant's saw are made under a patent or patents subsequent to that of the plaintiff, is prima-facie evidence that they do not constitute any infringement on the alleged invention of the plaintiff."

Which instruction the court then and there refused to give to the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

The defendant also then and there asked the court to give to the jury the following instruction, namely:

18. "The jury are instructed that if, in a single instance, the alleged invention of the plaintiff was known and used prior to the alleged discovery thereof by the plaintiff, their verdict must be for the defendant."

Which instruction the court then and there refused to give to
142 the jury; and thereupon the defendant's counsel did then and there except to the refusal of the court to give said instruction to the jury, and did then and there tender this his bill of exceptions to the court to sign and seal, and the court did then and there sign and seal the same.

In connection with the instructions hereinbefore recited, the court gave to the jury the following instructions:

143 *Charge of the jury.*

The court charged the jury as follows:

1. GENTLEMEN OF THE JURY: I regret somewhat that counsel in this case have not found it convenient to argue the case to the jury so as to classify this testimony, and allow the court time and give it information for the purpose of determining what is proper to say to you in regard to questions of law and fact which arise in the case.

You have been chosen to try the issues in this case.

All questions of fact which arise in it you are the judges of, to determine under your oaths, according to the evidence given you in the court.

All questions of law which arise in the case the court must determine, and give you the law; and you are bound by your oaths and your duty as jurymen to be governed by those instructions—to take the law as the court gives it to you, and apply it to the facts as you find them to be from the testimony, and make up your verdict accordingly.

144 2nd. In this case the plaintiff claims that he is the inventor of a new and useful machine or mode of inserting detachable teeth in circular saws; and that the defendant is wrongfully selling saws with detachable teeth, which is an infringement upon his patent—which involves his invention, or involves the use of his invention. That is the case of the plaintiff. He alleges that this infringement of his patent—that this injury to his right—has been carried on by the defendant since, I think, the tenth of July last year, and up to the present time. The suit was commenced a year ago last August.

3d. The defence of the defendant is, first, a denial of the right of the plaintiff, a denial of his invention, of his letters-patent, of the right which he claims in the premises.

Further, a special plea is made in the answer that this was a discovery

by one Newton prior to the patent of the plaintiff. The court has decided that the instrument described in that patent bears no relation or similarity to the invention or matter here in controversy, and excluded
145 it from the case, so that you have nothing to do with that question. The defendant also justifies his conduct on the ground that in 1865 a patent was issued to one J. E. Emerson for an improvement in the mode of inserting adjustable teeth in circular saws; that the right of the patentee was subsequently to that, in 1866, legally transferred to the American Saw Company, and a patent issued to them; and that this defendant is acting under their authority or in their employment, and is justified by that patent in what he is doing, and that it is not an infringement upon plaintiff's patent.

4. The first question—the first controverted question—which arises in this case is the priority of the invention. As a matter of law, the patent of the plaintiff is sufficient proof. In the absence of testimony to the contrary, it is sufficient to prove that he was the first inventor of the use or mode of inserting teeth, and that it is novel and useful.

In other words, his patent proves all that is necessary for him to prove to maintain his action, except the misconduct of the defendant,
146 as alleged, by his infringement. It is a question of fact for the jury to determine, nevertheless, the question of priority of invention and use; but there are certain rules of evidence, and the law in relation to it makes certain evidence sufficient, and the jury are bound to be governed by it. The patent is sufficient evidence prima facie that he is the inventor of this mode of inserting teeth, and that it is novel and useful in itself. The only evidence in the case controverting the patent, or controverting the conclusions of the patent—the effect of the patent in this respect—is the testimony of Mr. Sornberger. That testimony having been admitted without objection, of course, the jury are to consider it. You remember what his testimony was; what he said as to what took place between himself and Mr. Spaulding. You have the testimony of Mr. Spaulding upon that point, the testimony of Mr. Ratcliff, the testimony of Mr. Hansford, and the testimony of Mr. Sornberger; and if you are satisfied from that testimony that Mr. Sornberger showed Mr. Spaulding how to insert teeth upon circular lines—
147 that he suggested the idea to him, and told him about it—for the purpose of preventing saws from breaking, I do not think Spaulding could be considered the discoverer of it, and entitled to the patent for it—although he afterwards put it in practice, and obtained a patent—if the idea was fully communicated to him by Mr. Sornberger at that time. But it is proper and right for me to call your attention to this matter, as has often been done by the courts in these cases—that you should regard that kind of testimony with care, caution, and prudence. Where a man comes into court upon a trial of this kind and states that on some particular occasion he communicated to the patentee the idea embraced in the patent, and, so far as we know, nothing has ever since been said or heard about it, and where a controversey arises between the parties about a patent which suddenly becomes valuable, that kind of testimony ought to be scrutinized by a jury with great care. Where there is a conflict in the testimony, you must decide according to the
148 preponderance; and the defendant must show—must satisfy your minds, so as to overcome the proof in the patent—that this man was not the discoverer of this art or mode, before you are justified in coming to the conclusion that he is not. If you should come to the conclusion that he is not the inventor of this art, mode, or discovery, your

verdict will be for the defendant, and that ends the investigation. If you should conclude that he is, then you will consider it further.

The next controverted question which arises in this case is the identity of the Spaulding and the Emerson patent. This is a question of both law and fact. The jury, it is true, will ultimately decide it; but the court has to give you instructions as to the law, *and* you are to apply to the facts as you find them, in order to determine it. This, I apprehend, is the question in this case.

One word before proceeding further as to the opinions of experts—persons skilled as mechanics and machinists, who have testified and given to you and the court their opinions as to the identity of the two machines.

149 Their opinions are entitled to respect in proportion as they manifest intelligence and appear to communicate their ideas with fairness; but neither the court nor the jury are bound by their opinions, particularly in a case where, like this, the subject in controversy is simple and plain in form, and where the models themselves are in court, to see for themselves.

It is claimed by the plaintiff in this case that his improvement has been appropriated by the defendant.

You have seen the saws and the models of the teeth, and you are as good judges as any one.

One word in regard to the shank of the Emerson tooth. This long, straight part (showing) runs out here. It has been shown by the testimony, some of which has been ruled out and some left to you, that long tooth prevents the wearing of the saw-plate, because it catches the sawdust, receives the friction, and wears out itself, but saves the plate, which is valuable, from wear.

That is the claim, but the plaintiff does not claim anything in his patent in that particular. That may be a great improvement; but if in

150 making that, the defendant has also used the plaintiff's invention of the circular line, to prevent the saw from cracking, he is nevertheless liable to the extent that he has made that infringement.

So far as damages are concerned, if you find for the plaintiff—he is, in the first place, entitled to nominal damages; for instance, one cent, at least some damages—then you will find whatever sum you think the plaintiff has actually sustained as damages, not guessing at it, but as it appears from the evidence. Nor are you to require actual proof of every dollar he has lost by the wrongful act of the defendant, but you are to look at the matter as reasonable men, and determine what the business was worth, and how many teeth he was in the habit of selling; whether he was selling them at a less rate in price; whether that reduction, if any, was produced by this competition or produced by the general stagnation of the business of the country, the lowering of the price of labor, increased facilities for manufacture, &c., everything that may have tended to produce it; and whatever damage you may find that he has suffered beyond nominal damages, that will be your verdict.

151 The next is No. 11:

"A patent is not allowed for the mere exercise of mechanical skill. The patentee must, to entitle him to his patent, have first invented the subject-matter of his patent; must have added something to what was previously known or used."

The next instruction I give is No. 18:

"The credibility of the witnesses of the plaintiff and defendant are altogether matter of fact for the jury; and in determining the amount of

credit due them respectively, the interests, relations, motives, and opportunities of observation of each witness will be taken into consideration. But if the jury believe that any party or witness has wilfully sworn falsely with respect to any material fact, they are at liberty to disregard the whole of the testimony of such party or witness. If, in the course of his conversation at the shop, Sornberger suggested the rounding of the corners, and yet the plaintiff had conceived the idea before, and was experimenting upon it in the progress of developing
152 it and testing it, and proceeded to do so, and obtained a patent for it, the suggestion of Sornberger, under those circumstances, would not invalidate his discovery or his patent.

"This is an action brought for an alleged infringement of certain letters-patent granted by the United States Government to the plaintiff, Nathan W. Spaulding, for an alleged new and useful improvement on saws and saw-teeth."

That is a mere statement of the case.

Second. Said alleged improvement consists—

I. In forming a recess or socket in the periphery or edge of the saw-plates, or the insertion of detached or moveable teeth on circular lines where the pressure or strain is applied; and,

II. Making, in combination with such sockets or recesses formed in saws or saw-plates, teeth having their base or bottom-plates formed on circular lines to fit with exactness and precision in said sockets or recesses.

3d. The object of the alleged invention "is the construction of saws in which detachable or removable teeth may be used without danger of cracking or splitting of the saw-plates on account of such teeth being inserted therein.

153 "4. If the jury believe from the evidence that the plaintiff, Spaulding, did make the change alleged by him in the form of the sockets or recesses made in the edges of saw-plates for the insertion of removable teeth, and further believe that such change produced a new and beneficial effect in rendering the saw-plate less liable to split or crack, and also believe that the said Spaulding was the original and first discoverer or inventor of such change in the form of said sockets or recesses, then his patent is valid, and vests in him the exclusive right and liberty of making and using and selling to others to use such invention."

"7. The plaintiff, in his pleadings, has only claimed five thousand dollars damages, and the verdict must not be for more than that amount."

I give you all those instructions, and charge you that is the law.

And be it further remembered that each and all of the several exceptions and bills of exceptions hereinbefore set forth were duly taken
154 and made in presence of the court and jury during the pendency of the trial of said action, and before the jury had retired to consider of their verdict therein; in testimony of all of which the undersigned, the honorable judge who presided in said court at the trial of said action, has hereunto set his hand and seal this twenty-sixth day of October, A. D. 1869, at the city of San Francisco, State of California aforesaid.

MATTHEW P. DEADY, *Judge.*

155 EXHIBIT "A."

Reissue No. 1456.

The United States of America to all whom these letters-patent shall come:

Whereas Nathan W. Spaulding, of San Francisco, California, (formerly of Sacramento, Cal.,) has alleged that he has invented a new and useful improvement in setting teeth in saws and saw-plates, (for which letters-patent were issued to him, dated Sept. 10, 1861, which letters having been surrendered by him, the same have been cancelled, and new letters ordered to issue to him on an amended specification,) which he states has not been known or used before his application; has made oath that he is a citizen of the United States, that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents signifying a desire of obtaining an
156 exclusive property in the said improvement, and praying that a patent may be granted for that purpose:

These are therefore to grant, according to law, to the said Nathan W. Spaulding, his heirs, administrators, or assigns, for the term of seventeen years, from the tenth day of September, one thousand eight hundred and sixty-one, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given, in the words of the said Nathan W. Spaulding, in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-first day of April, in the year of our Lord one thousand eight hundred and sixty-three, and of the independence of the United States the eighty-seventh.

[L. S.]

J. P. USHER,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

D. P. HOLLOWAY,
Commissioner of Patents.

157 *The schedule referred to in these letters-patent, and making part of the same.*

To all whom it may concern:

Be it known that I, Nathan W. Spaulding, of the city of San Francisco, formerly of the city of Sacramento, in the State of California, have invented a certain new and useful improvement on saws and saw-plates; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters and marks thereon:

My improvement relates to that class of saws or saw-plates wherein detachable or removable teeth are fitted into recesses or sockets formed in the edge or periphery of the saw-plates, and into which the teeth were

to be fitted, were of rectangular form, the bottom or base of the socket or recess being at right angles to the sides, or the recess or socket being of angular form. The teeth to be fitted into these sockets had also rectangular or angular form; i. e., the body of the teeth, or that part which was to be fitted into the socket. In use, the pressure of these
158 teeth necessarily bore upon the angles of the sockets, and in consequence of the pressure and strain thereon, frequently fractures were made, extending from the socket into the saw-plate. These fractures always injured the saw-plate, and often entirely ruined it, so that very considerable loss would occur in using saws with detachable teeth.

Now, my invention has for its object the remedying of the difficulties that existed from the insertion of these teeth into the recesses or sockets above named; and my invention consists in providing the saw or saw-plate with teeth or other pieces set therein in circular lines, instead of angular, where the power is applied, whereby the pressure is distributed in equal proportions on the saw or saw-plate, and the danger of splitting, cracking, or breaking is entirely removed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation:

I construct my saw or saw-plate in any of the known forms, and fit and apply thereto teeth and other pieces necessary, with circular instead of angular lines, at the base or other places therein, where the
159 pressure or force applies. And in order to obviate the danger arising from the saw or plate splitting, cracking, or breaking at the place where the tooth or other piece is set in the saw or saw-plate, as generally is the case when set therein by angular lines, I set the tooth or other piece in the saw or saw-plate with circular lines, as shown at D D, in the accompanying drawing, wherein letter A is a perspective view of a circular saw-plate; letters B are perspective views of sections of a circular saw-plate; letters C are perspective views of teeth to be set in the saw or saw-plates; letters D are perspective of the circular lines in the saw or saw-plate at the base of the teeth, where the pressure applies, and where the plate usually splits, cracks, or breaks; and letter E represents a smooth rivet or key, to fasten the tooth or other piece in the saw-plate. In the saw or plate wherein the tooth or other piece is to be set, a "gain," with a beveling tongue on the inside and around the edge, and a semicircular hole for a key on the lifting side, is to be made as represented in Figure 4, letters D D, the line at the points D D being circular instead of angular. The tooth, as rep-
160 resented in Figure 3, letter C, is to be made with a beveling groove on the outside or edge, with a semicircular hole on the lifting side corresponding with the hole in "gain," represented in Figure 4, at letter E, by which, with a rivet, to fasten the tooth in the saw-plate.

All the corresponding parts of the tooth to be inserted in the "gain," are to be fitted therein with exactness and precision, and fastened with a rivet, as above described.

The recesses or sockets in the saw-plate for the insertion of the teeth may be made when the saw-plate is formed—i. e., in the manufacture of the plate—or they may be made at any subsequent time, by using a "gummer," or any other suitable tool or implement. In some instances it may be desirable to embrace the entire surface of the base or bottom of the socket or recess in the circular lines, while in others it may only be necessary to embrace the terminal point of the sides of the socket. That point where the sides and bottom meet, and which constitutes the angle in the straight-line sockets or recesses, and the circular lines may be applied to the entire substance of the socket or recess, or they may

be limited to the "gain" only; the application of my invention
161 to the particular saw-plate, of course, being susceptible of being raised as the character of the plate may, in the judgment of the maker or operator, require. While the circular lines may be greater or less, and embrace a greater or less amount of the recess or socket, the teeth to be inserted therein may also vary in form, it being even better to insert teeth having rectangular bodies or base in the circular-lined sockets than in rectangular or angular sockets.

What I claim as new, and desire to secure by letters-patent, is—

1st. Forming the recesses or sockets in saws and saw-plates for detachable or removable teeth on circular lines, substantially as and for the purpose herein set forth.

2nd. In combination with sockets or recesses formed in saws or saw-plates, as herein recited, I claim teeth having their base or bottom parts formed on circular lines, as described.

This specification signed this 2nd day of 1863.

N. W. SPAULDING.

Witnesses:
G. F. ALLARDT.
W. O. ANDREWS.

(Here follow maps marked page 161, Nos. 1 and 2.)

162 EXHIBIT B.

Exhibit "B," referred to in Exception No. 3.

The documents therein referred to are in the words following, as taken from duly certified copies thereof, from the United States Patent Office:

To the Commissioner of Patents:

The petition of Nathan W. Spaulding, of the city and county of Sacramento, and State of California, respectfully represents that your petitioner has invented a new and improved mode or method of setting steel teeth and other metallic substances in saws and saw-plates, so as to prevent the plate from splitting, which he verily believes has not been known or used prior to the invention thereof by your petitioner.

He therefore prays that letters-patent of the United States may be granted to him therefor, vesting in him and his legal representatives the exclusive right to the same upon the terms and conditions expressed in the act of Congress in that case made and provided, he having
163 paid thirty dollars into the Treasury, and complied with the other provisions of the said act.

Dated at Sacramento City, California, on this 17th day of April, 1860.

NATHAN W. SPAULDING.

Specification.

To all whom it may concern:

Be it known that I, Nathan W. Spaulding, of the city and county of Sacramento, in the State of California, have invented a new and improved method of setting teeth and other metallic substances in saws and saw-plates, so as to prevent the plate from splitting or cracking;

Dated at Sacramento City, California, on this 16th day of July, 1860.

CROSS AND MARSHALL,
Attorneys for Applicant, N. W. Spaulding.

Subscribed and sworn to on 16th July, 1860, before me.

SAMUEL CROSS,
Notary Public.

To the Commissioner of Patents:

The petition of Nathan W. Spaulding, of the city and county of Sacramento and State of California, respectfully represents that, on the 17th day of April, 1860, he did petition for the issuance to him of letters-patent of the United States granting to him and his legal representatives the exclusive right to the use of a new and improved mode invented by him of setting steel teeth, and other metallic substances, in saws and saw-plates by the application of circular instead of angular lines where the force is applied, whereby the saw-plate is pre-
171 vented from splitting, cracking, or breaking.

On the same date he forwarded to the Patent Office his said petition with the specifications, drawings, and model required by law, and also thirty dollars fees, which petition, drawings, and specifications were duly filed in said Patent Office on the 17th day of May, 1860; and thereupon afterwards his application was examined and rejected, of which your petitioner had notice in substantially the following words:

"The patent granted to J. C. Emerson, March 20th, 1860, seems to cover every essential feature. The mere rounding of the corner is not patentable."

The undersigned believing that he has discovered and invented a very useful remedy against the difficulty heretofore experienced, by inserting teeth in saws upon angular lines, whereby in using them the plate invariably splits and breaks, thereby rendering the use of false teeth impracticable; and knowing from experience that his invention fully remedies this difficulty at small expense, and also that it does not interfere with Mr. Emerson's patent, but, on the contrary, making
172 it more valuable; and believing also that his claim has been mistaken by the examiners and its value not fully appreciated, he respectfully asks that his application above referred to may be examined and a patent issue according to the prayers of his petition, and the drawings and specifications above referred to, and now on file.

Your petitioner would also respectfully ask attention to the following considerations:

1st. This claim is not for false teeth, as described in the patent granted to Mr. Emerson, and does not in any way interfere with it. Emerson's patent is for a flanch upon the tooth to keep the back of the saw clear of dust, and for this purpose his improvement is valuable, overcoming the tendency to clog by sawdust collecting in the back of the saw. But while this is effectually done, there still remained another difficulty in using false teeth in circular saws, which his improvement does not reach, that is, the certain and inevitable tendency there is of the saw-plate splitting, breaking, or cracking in the corner at the base of the tooth where it is inserted in the plate.

173 Hitherto, and until the improvement invented by your petitioner of inserting the teeth upon circular instead angular bases, saws having false teeth inserted were constantly breaking; but since the improvement invented by your petitioner has been used, the difficulty is entirely overcome, so that now one saw-plate will last without

breaking, while several sets of teeth are wearing out. Thus it will be seen that the invention of your petitioner is neither the same as Mr. Emerson's, nor does it in any way interfere with his, but, on the contrary, is a valuable improvement, aiding the use of his.

2nd. False teeth in circular saws have long been in use, but until the invention of your petitioner, they have always been inserted on bases with right angles, and the consequence has always been, that the saw-plate (which is a very expensive article either to purchase or repair) breaks at the corner with the force necessary in driving being concentrated at one point. This invention distributes the pressure of this force, and
174 by using teeth with circular instead of angular bases, the saw never breaks, splits, or cracks until the teeth wear out.

If, therefore, an invention such as that of Mr. Emerson, whereby the only improvement made in saw-teeth is the clearing of the track of the saw of dust is patentable, your petitioner certainly thinks that another improvement whereby the saw is prevented from breaking, splitting, or cracking has sufficient merits to entitle him to a patent.

3. This invention of your petitioner has not heretofore been in use until the discovery and application of it by him, and yet such is its practical utility that already constant applications are being made to him to repair circular saws wherein teeth inserted upon angular bases, and which, in consequence of the concentration of force upon one spot, have been split and broken in the plate of the saw. In no instance, however, has any saw been split or broken wherein your petitioner has inserted false teeth upon bases made circular instead of angular. Of the practical utility and substantial value of your petitioner's im-
175 provement, much evidence from California and Oregon could be produced, if the rules of the Department permitted.

4th. Your petitioner utterly disclaims claiming any patent for the improvement patented to J. C. Emerson on March 20, 1860, or any interference with it, and declares that he only claims for the improvement set out in his specification hereinbefore referred to, and now on file in the Patent Office, and herewith also forwards a renewal of his oath, accompanying said specifications and drawings, according to directions in your circular of Aug. 7, 1860.

Respectfully petitioning that his application may be re-examined and the foregoing matters taken into consideration, and, as in duty bound, your petitioner will ever pray.

Dated at Sacramento City, California, on the eleventh day of September, 1860.

NATHAN W. SPAULDING.

SAMUEL CROSS,
T. B. MARSHALL,
Witnesses.

176 I, Nathan W. Spaulding, being duly sworn, according to law, do declare and say that I am well acquainted with the contents of the foregoing petition, and all the matters and things therein stated are true of my own knowledge and belief.

NATHAN W. SPAULDING.

Subscribed and sworn to before me the 14th Sept., '60.

SAM'L CROSS,
Notary Public.

177 OCTOBER 19TH, 1860.

Upon *recommendation* of your claim and argument it does not

seem proper to regard it. Tenons are rounded, you are aware, to avoid splitting, and to allow for any slight play in the mortice. Also this principle is applied to check a crack in stove or other iron and glass plates, that is, a small hole is drilled at the end of the crack, this allowing a rounded surface, to prevent further cracking. That the rounded corners of the teeth are better than the angular ones is true, but it is only the application of a well-known and practical principle, and the claim is therefore again refused.

J. L. H.

N. W. SPAULDING, *Sacramento, California.*

178 EXHIBIT C.

The United States of America to all whom these presents shall come:

Whereas J. E. Emerson, of Trenton, New Jersey, has alleged that he has invented a new and useful improvement in saw-teeth for saws, which he states has not been used or known before his application; has made oath that he is a citizen of the United States, that he does verily believe that he is the original or first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose:

These are, therefore, to grant, according to law, to the said J. E. Emerson, his heirs, administrators, or assigns, for the term of seventeen years from the twelfth day of September, one thousand eight
179 hundred and sixty-five, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used the said improvement, a description whereof is given, in the words of the said J. E. Emerson, in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twelfth day of September, in the year of our Lord one thousand eight hundred and sixty-five, and of the independence of the United States the ninetieth.

[L. S.] W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

T. C. THEACKER,
Commissioner of Patents.

(Here follows map marked page 179.)

180 *The schedule referred to in these letters-patent, and making part of the same.*

To all whom it may concern:

Be it known that I, J. E. Emerson, of Trenton, in the county of Mercer and State of New Jersey, have invented a new and useful improvement in circular saws; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled

in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification, in which—

Figure 1 is a side view of a portion of a circular saw provided with teeth, according to my invention.

Figure 2, a section of the same taken in the line *x x*.

Figure 3, a section of the same, taken in the line *y y*.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved circular saw of that class which are provided with removable or detachable teeth, and it consists in securing the teeth to the saw in such a manner that they cannot
181 become casually loose, and will be capable of being readily secured to the saw and detached from it.

A represents a portion of a circular saw, and B B two teeth thereof. These teeth are of curved form, the outer or tooth portion *a* being taper, and having a proper raking position, and connected to the inner part *b*, which is straight, by a semicircular bend *c*, as shown clearly in Figure 1.

The saw A is hollowed out, or has recesses made in at suitable or equal distances apart to receive the teeth B, the semicircular part *c*; and the shank or inner *b* being in the saw, and the outer tooth part *a* projecting out from the saw in a raking position.

The outer edge of the bend *c* and shank portion *b*, as well as the end of the latter, has a V-shaped groove *d* made in them to receive a corresponding-shaped edge made in the recesses of the saw, have holes *e* drilled in them, one-half of the holes being in the teeth, and the other half in the saw. These holes receive pins *f*, which secure the teeth in the saw.

182 From the above description it will be seen that when the saw is at work, the resistance offered by the wood to the saw-teeth will have a tendency to secure the latter more firmly in the saw, the direction of the pressure being indicated by the arrows. The teeth, therefore, cannot casually work loose, as is the case with other saws provided with detachable teeth.

Another advantage attending my invention is that the teeth do not require to be driven violently into the saw so as to expand the same and cause it to buckle, as is the case where the teeth are provided with shanks fitted in radial slots in the saw. The teeth thus fitted or driven in the saw are difficult to remove, and the saw is frequently checked or cracked thereby.

I claim as new, and desire to secure by letters-patent—

The curved tooth *a c b*, constructed and applied to a saw-plate in the manner herein specified.

J. E. EMERSON.

Witnesses:
M. M. LIVINGSTON.
C. L. TOPLIFF.

183 EXHIBIT D.

THE U. STATES [figure of eagle] PATENT OFFICE.

To all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters-patent granted American Saw Company, dated August 28th, 1866, No. 57627, for "improvement in saws."

In testimony whereof I, Samuel S. Fisher, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this second day of September, in the year of our Lord one thousand eight hundred and sixty-nine, and of the independence of the United States the ninety-fourth.

{ SEAL OF THE U. S. PAT. OFFICE. }

SAMUEL S. FISHER, *Commissioner.*

184 The United States of America to all whom these letters-patent shall come:

Whereas J. E. Emerson, of Trenton, New Jersey, has alleged that he has invented a new and useful improvement in saws, (he having assigned his right, title, and interest in said improvement to American Saw Company of New York City,) which he states has not been known or used before his application; has made oath that he is a citizen of the United States, that he does verily believe that he is the original and first inventor or discoverer of the said improvement, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty-five dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose:

These are therefore to grant, according to law, to the said American Saw Company, their successors or assigns, for the term of seventeen
185 years from the twenty-eight day of August, one thousand eight hundred and sixty-six, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said improvement, a description whereof is given, in the words of the said J. E. Emerson, in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand, at the city of Washington, this twenty-eighth day of August, in the year of our Lord one thousand eight hundred and sixty-six.

[L. S.]

W. T. OTTO,
Acting Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

T. C. THEAKER,
Commissioner of Patents.

186 *The schedule referred to in these letters-patent, and making part of the same.*

To all whom it may concern:

Be it known that I, J. E. Emerson, of Trenton, in the county of Mercer, and State of New Jersey, have invented a new and useful improvement in circular and other saws; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, which are made a part of this specification, and in which—

Figure 1 is a perspective view of my invention.

Figure 2nd is an edge view of the same.

Figure 3rd is a section of the same taken in the line *x x*, Figure 1.

Figure 4 is a section of the same taken in the line *y y*, Figure 1.

Figs. 5 to 8 inclusive represent my invention applied to a saw-tooth with straight instead of curved back; Fig. 5 being a side view
187 of the tooth in position in the saw-plate; Fig. 6, a perspective view of the tooth detached; Fig. 7, a perspective view of a fragment of the saw-plate without the tooth; and Fig. 8, an edge view of the parts represented in Fig. 5.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improvement in circular and other saws of that class which are provided with removable or detachable teeth, and is an improvement on a saw of the class specified for which letters-patent were granted to me, bearing date Sept. 12th, 1865.

The object of the present invention is to facilitate the adjustment of the teeth in the saw, "prevent their escape radially, tangentially, or in any other direction in the plane of the saw, without the necessity of applying a rivet or screw at the curved part of the teeth, and at the same time retain all the advantages of the previous patented invention, while avoiding disadvantage pertaining thereto, the same consisting of the weakening of the teeth by the inserting of rivets at the most vulnerable points thereof."

A represents a portion of a circular saw, and B B two teeth
188 thereof. These teeth are of a peculiar shape, their central portion *a* being of a semicircular or other elbow form, so as to have a bend, their outer parts *b* having a tangential position relatively with *a*, and in raking position relatively with the edge of the saw-plate, and having oblique or levelled inner and outer edges which give the parts *b* a taper form. The inner parts *c* have parallel outer and inner edges. The back *a* and heel *c* of the cutters are fitted within the saw-plate A, recesses being made in the latter to receive said parts, and of such form that the end of the heel *c* of the teeth will abut against straight shoulders *d*, and the outer edge of the back *a* against shoulders *e*, as shown clearly in Figure 1, a projecting of the saw-plate extending so far over the back of the tooth as to prevent its escape or removal radially, tangentially, or in any other direction in the plane of the saw-plate.

In Fig. 5 is clearly shown the convergence of the parts *d* and *e*, which effectually secures a straight-backed tooth against removal in a radial or tan*gular* direction.

The outer edges of the backs *a* of the teeth are grooved in V-
189 form, as shown at *f*, to receive a corresponding V-shaped projection *g* in the shoulders *e*, (see Figures 4 and 8,) but the edges *a* of the heels *c* of the teeth which abut against the saw-plate have plane surfaces. By this arrangement it will be seen that the teeth may be shoved laterally into the recesses in the saw-plate and with the greatest facility, the shoulders *a* being introduced first and the heels *c* afterwards, without a curved movement in the plane of the saw-plate, as in the former plan patented by me and previously alluded to. The groove *f* in the outer edge of the back *a* of the teeth, with the projection *g* of the shoulder *e* fitting in them, effectually hold the backs of the teeth in position, while the parts *c* being inserted last are retained in place by rivets *c*. I would remark that the shoulders *d* against which the ends of the heels *c* of the teeth abut, as well as the ends of *e*, may be bevelled, so as to prevent the parts *c* from moving or shifting laterally in one direction. The rivets *c*, it will be seen, pass through holes, one-half of which are made

in the ends of *c*, and the other half in shoulders *d*. By this arrange-
190 ment the teeth may not only be adjusted in the saw with greater facility than hitherto, but *but* also secured more firmly in position, as the backs *a* of the teeth may be fitted in deeper recesses, owing to the lateral insertion of the teeth in the saw-plate, and the use of rivets at the semicircular parts of the teeth is avoided, which is an important feature, as the rivet holes in the original plan served to weaken the teeth, being at a point where the teeth are subjected to the greatest strain. The teeth B at their outer edges, all around, are thicker than the saw-plate, in order to make a kerf sufficiently wide to keep the saw-plate free from its sides, (see Figures 2 and 3.) The edges 1 of the parts *c* of the teeth are not quite so thick as the points of the teeth, said edges 1 being a trifle narrower, so as not to bend in the kerf, but sufficiently wide to clear the kerf of sawdust.

Thus, by this simple modification, the teeth may be more readily adjusted to and detached from the saw-plate; be more firmly secured in position when adjusted to the saw; friction in the saw-plate in the kerf avoided; the clearing of sawdust from the kerf accomplished;
191 and the teeth not weakened or diminished in strength by rivets, as was hitherto the case. The application of the rivets at the ends of the parts *c* of the teeth has a tendency to keep the teeth firmly in position, as they bind the parts *a* of the teeth firmly against the shoulders *e* of the saw-plate; whereas, in my former plan, the rivets at the curve had an opposite tendency.

It will also appear that, by the construction now described, the teeth are held independently of the rivet or screw against any strain in the place of the saw.

A great advantage of my manner of inserting the teeth laterally is, that it is rendered impossible for them to fly out by centrifugal action, even if the rivets should be out. Under my former patent, on the contrary, the teeth were inserted radially in the plane of the saw, so that although, while the teeth were in the wood, the action of sawing would tend to keep the teeth in their place, the centrifugal action tended to eject the teeth which were not in the wood; and in case of the breaking or removal of a rivet, the tooth was liable to fly out and endanger

(Here follow maps marked page 191, Nos. 1 and 2.)

192 the injury of an attendant.

Having thus described my invention, I claim as new and desire to secure by letters-patent—

The teeth B fitted at the back by tongue-and-groove joints *f g* to the shoulders *e* of the saw-plate, in combination with rivets, screws, or keys *c* of the teeth, when the parts are constructed and arranged substantially as herein represented, so that in inserting the teeth the shoulders *a* must be first placed in position, and the heels afterwards introduced laterally to the saw-plate, and then secured by the rivets *c* as explained.

J. E. EMERSON.

OCTAVIUS KNIGHT,
JOHN A. WIEDERSHAM,
Witnesses.

Ex'd.—M. W.

193 EXHIBIT E.

THE UNITED STATES [figure of eagle] PATENT OFFICE.

To all persons to whom these presents shall come, greeting:

This is to certify that the annexed is a true copy from the records of this office of the letters-patent granted John Newton, dated 19th June, 1855, No. 13096.

In testimony whereof I, Elisha Foote, Commissioner of Patents, have caused the seal of the Patent Office to be hereunto affixed this ninth day of February, in the year of our Lord one thousand eight hundred and sixty-nine, and of the independence of the United States the ninety-third.

SEAL OF THE U. S. PATENT OFFICE.

ELISHA FOOTE.

194 The United States of America to all whom these letters-patent shall come:

Whereas Jonah Newton, of New York, N. Y., has alleged that he has invented as new and useful method of securing cutters to rotary discs, which he states has not been known or used before his application; has made oath that he is a citizen of the United States, that he does verily believe that he is the original and first inventor or discoverer of the said method, and that the same hath not, to the best of his knowledge and belief, been previously known or used; has paid into the Treasury of the United States the sum of thirty dollars, and presented a petition to the Commissioner of Patents, signifying a desire of obtaining an exclusive property in the said method, and praying that a patent may be granted for that purpose:

These are therefore to grant, according to law, to the said Jonah Newton, his heirs, administrators, or assigns, for the term of four-
195 teen years, from the nineteenth day of June, one thousand eight hundred and fifty-five, the full and exclusive right and liberty of making, constructing, using, and vending to others to be used, the said method, a description whereof is given, in the words of the said Newton, in the schedule hereunto annexed, and is made part of these presents.

In testimony whereof I have caused these letters to be made patent, and the seal of the Patent Office has been hereunto affixed.

Given under my hand at the city of Washington, this nineteenth day of June, in the year of our Lord one thousand eight hundred and fifty-five, and of the independence of the United States of America the seventy-ninth.

[L. S.] ROBERT McCLELLAND,
Secretary of the Interior.

Countersigned and sealed with the seal of the Patent Office.

C. MASON,
Commissioner of Patents.

196 *The schedule referred to in these letters-patent, and making part of the same.*

To all whom it may concern:

Be it known that I, Jonah Newton, of the city, county, and State of New York, have invented a new and improved mode of securing cutters

to rotating discs or plates, for the purpose of cutting tongues and grooves, mortises, etc.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Fig. 1 is a side view of the disc or plate, with four cutters attached to it.

Fig. 2 is a longitudinal section of one of the cutters, and a portion of the disc or plate [*y*] [*y*], Fig. 3, shows the plane of the section.

Fig. 3 is a transverse section of one of the cutters, and a portion of the disc or plate (*x*) (*x*), Fig. 7, shows the plane of section.

Similar letters of reference indicate corresponding parts in the several figs.

197 The nature of my invention consists in attaching the cutters to the disc or plate in a peculiar manner, as will be hereafter fully shown and described, whereby the cutters may be adjusted so as to be always in proper position and act upon the wood or stuff at a proper angle.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it:

A represents the disc or plate to which the cutters (*a*) are attached. The disc or plate is hung as usual upon a rotating shaft, and may be, as shown in Fig. 1, of square form, having a projection (*b*) at each angle or corner.

The front edges of the projections (*b*) are of semicircular form, and have grooves (*c*) cut in them, one in each, at the centres of the edges, as clearly shown in Figs. 2 and 3.

The cutters (*a*) are of semicircular form, and have each a projection or ledge (*d*) on their backs or convex sides, which are fitted in the grooves (*c*); the front or concave sides of the cutters (*a*) have each a groove (*e*) cut in them, in which a segment nut or head (*f*) fits, the back or
198 convex sides of the nuts having each a ledge or projection (*g*), which fit in the grooves (*e*). See Figs. 2 and 3.

Through each of the projections (*b*) a screw (*h*) passes, the screws (*h*) also passing through the cutters (*a*) and into the nuts or heads (*f*). A slot (*i*) is made (see Fig. 2) through each cutter, for the screws to pass through, and also to allow a certain degree of play.

The cutters are firmly secured to the projections (*b*) by the screw (*h*), as will readily be seen; and the cutters cannot move laterally, in consequence of the projections or ledges (*d*) on their backs fitting in the grooves [*c*] in the front edges of the projections. Now, as the cutters are worn by being sharpened, they may be moved outward by relaxing the screws (*h*), so that the cutting edges will always be in the proper position, and act upon the wood or "stuff" at the proper angle, the slots (*i*) allowing the cutters to be moved outward.

The above invention is extremely simple, and the cutters are firmly secured to the disc or plate thereby; the great difficulty at present
199 with the usual forms of attachment is that the cutters work loose, not being well supported and firmly secured to the plate or disc.

Having thus described my invention, what I claim as new, and desire to secure by letters-patent, is—

Securing the cutters (*a*) to the disc or plate A, as herein shown and described, viz: Having the cutters of semicircular form, with ledges or projections [*d*] on their back or convex sides; the ledges or projections being fitted in grooves (*c*) in the semicircular edges of the projections (*b*) of the plate A; the front or concave sides of the cutters having grooves (*e*) in them to receive the nuts or segment heads (*f*), the

projection (*b*), cutters (*a*), and nuts or heads (*f*) having screws (*i*) passing through them, for the purpose of allowing the cutters to be adjusted properly, and also securing firmly the cutters to the disc or plate.

JONAH NEWTON.

Witnesses:
J. W. COMBS.
WILLIAM TUSCH.

Ex'd.—A. T.

(Endorsed:) Filed October 26, 1869. Geo. E. Whitney, clerk.

(Here follows map marked page 199.)

200 *Order as to bill of exceptions.*

In the circuit court of the United States of the ninth judicial district in and for the district of California.

NATHAN W. SPAULDING
vs.
WILLIAM TUCKER.

On motion of McAllisters and Bergin, attorneys for the defendant in the above-entitled action,

It is ordered that said defendant have leave to file and serve and settle his bill of exceptions in the above-entitled cause, to be annexed to the writ of error allowed herein; and that the same, when so settled, have the like force and effect as if filed, served, settled, and duly signed prior to the allowance of any writ of error herein; and that said bill of exceptions so settled and signed be annexed to and returned with said writ of error.

DEADY, *J.*,
OGDEN HOFFMAN, *Dist. Judge.*

(Endorsed:) Filed 6 December, 1869. Geo. E. Whitney, clerk.

201 *Stipulation.*

In the circuit court of the United States of the ninth judicial district in and for the district of California.

NATHAN W. SPAULDING
vs.
WILLIAM TUCKER.

It is hereby stipulated and agreed that on the argument of the above-entitled cause in the Supreme Court of the United States, either party, plaintiff in error, or defendant in error, may exhibit and use on such argument specimens of the saws and machines made under the several and respective letters-patent mentioned in the bill of exceptions in said cause, with the like force and effect as if such specimens or machines had been annexed to and made part of said bill of exceptions as exhibits thereto and part thereof; and that the said Supreme Court, in deciding said cause, may consider the same with the like force and effect as if

they had been properly attached to and made part of said bill of exceptions.

Dated San Francisco, December 6, A. D. 1869.

M. A. WHEATON,
Attorney for Plaintiff.

202 McALLISTERS & BERGIN,
Att'ys for Def't.

(Endorsed:) Filed 6 December, 1869. Geo. E. Whitney, clerk.

203 *Citation.*

UNITED STATES OF AMERICA, *ss:*

To Nathan W. Spaulding, greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States of America, to be held at the city of Washington, D. C., on the first Monday of December, A. D. 1870, pursuant to a writ of error filed in the clerk's office of the circuit court of the United States of the ninth judicial circuit in and for the district of California, wherein William Tucker is plaintiff, and you are defendant, in error, to show cause, if any there be, why the judgment in the said writ of error mentioned should not be corrected, and speedy justice should be done to the parties in that behalf.

Witness the Honorable —— —— this sixth day of December, A. D. 1869, and the independence of the United States the ninety-fourth.

MATTHEW P. DEADY,
District Judge holding Circuit Court.
OGDEN HOFFMAN,
Dist. Judge for Cal'a.

204 (Endorsed:)

Due service of a copy of the within citation is hereby admitted at the city of San Francisco, State of California, this 23d of December, 1869.

M. A. WHEATON and
ALFRED RIX,
Attorneys for Defendant in Error.

Filed 23d December, 1869.

GEO. E. WHITNEY, *Clerk.*

205 *Bond.*

In the circuit court of the United States of the ninth judicial circuit in and for the district of California.

NATHAN W. SPAULDING, DEFENDANT IN ERROR,
vs.
WILLIAM TUCKER, PLAINTIFF IN ERROR.

Know all men by these presents that we, Samuel Osgood Putnam and William Henry Moor, both of the city and county of San Francisco, State of California, are held and firmly bound unto the above-named defendant in error, Nathan W. Spaulding, in the sum of five thousand

($5,000 00) dollars, to be paid to said Nathan W. Spaulding, his executors or administrators; to which payment, well and truly to be made, we bind ourselves, and each of us, jointly and severally, and our and each of our heirs, executors, and administrators, firmly by these presents, dated this fourth day of December, A. D. 1869, and sealed with our seals.

Whereas the above-named William Tucker hath prosecuted a writ of error to the Supreme Court of the United States to reverse the judgment rendered in the above-entitled suit by the circuit court of the United States of the ninth judicial circuit in and for the district of California:

Now, therefore, the condition of the above obligation is such,
206 that if the above-named William Tucker shall prosecute his said writ of error to effect, and answer all damages and costs if he shall fail to make good his plea, then this obligation shall be void; otherwise the same shall be and remain in full force and virtue.

SAMUEL OSGOOD PUTNAM. [SEAL.]
WILLIAM HENRY MOOR. [SEAL.]

Sealed and delivered in presence of—
T. J. BERGIN.

I have examined the sureties named in the foregoing bond as to their sufficiency, and they are in all respects sufficient, and the said bond is hereby approved and allowed as sufficient security for prosecution of the writ of error therein mentioned.

In witness whereof I hereunto set my hand this 6th day of December, A. D. 1869.

DEADY, *J.*
OGDEN HOFFMAN, *Dist. Judge.*

(Endorsed:) Filed 6 December, 1869. Geo. E. Whitney, clerk.

207 I, George E. Whitney, clerk of the circuit court of the United States for the ninth circuit for the district of California, certify that the foregoing two hundred and six written pages, with the included exhibits, are true copies of original records and of all proceedings in the cause therein entitled, and that the same together constitute the return to the annexed writ of error.

Witness my hand and the seal of said court at San Francisco, in said district, this first day of February, A. D. 1870, and of the independence of the United States the ninety-fourth.

[SEAL.] GEO. E. WHITNEY, *Clerk.*

(Indorsement on cover:) No. 272. William Tucker, pl'ff in error, vs. Nathan W. Spaulding. California C. C. U. S.
Filed October 31st, 1870.

Supreme Court

OF THE UNITED STATES.

No. 272.

WILLIAM TUCKER,

Plaintiff in Error,

vs.

NATHAN W. SPAULDING.

Brief for Plaintiff in Error.

GEO. GIFFORD,

Counsel for Plaintiff in Error.

New York:

UNION PRINTING-HOUSE, 79 JOHN STREET.

1871.

Supreme Court of the U. S.

WILLIAM TUCKER,
Plaintiff in Error,
vs.
NATHAN W. SPAULDING.

No. 272.
December Term, 1870.

In this case, the Court below erred in rejecting testimony offered by defendant; in admitting testimony offered by the plaintiff; in its instructions and charge to the jury, and in refusing to charge, as prayed by the defendant.

I.

The Fourth Exception, folio 42 of the Record, to the exclusion of testimony, was well taken.

The offer by defendant's counsel, objection by plaintiff's counsel, and ruling of the Court, were as follows:

> "Thereafter, and in further cross-examination of said witness, N. W. Spaulding, for the purpose of repelling the claim of novelty in the discovery of said alleged invention, in said Letters Patent described,

and showing that the discovery thereof merely involved the exercise of mechanical skill, and not the power of invention, the counsel for the defendant offered to propound to said witness, then on the stand, the following question :

"Ques. Is it not a familiar device in practical mechanics to arrest or prevent a crack, or split, by rounding the point wherever a special pressure or strain occurs at that point, for the purpose of relieving that point by distributing the pressure or strain on a circular or rounded line ?

"Then I will follow it up by asking him if that device is not frequently used in the case of the tenon and the mortice ; then whether that device is not frequently used to prevent or arrest a crack in a stove, also in iron or glass plates—(each of these being separate questions).

"To which said questions, and every of them, and the evidence in connection therewith, plaintiff's counsel then and there objected, on the ground that the same was incompetent and irrelevant ; and thereupon the Court sustained said objection to said questions and every of them, and refused to allow said questions and testimony, or either of them, so objected to by plaintiff's counsel ; to which ruling of the Court the counsel for the defendant did then and there duly except, and did then and there tender to the Court this, his bill of exceptions, to sign and seal the same, and the Court did then and there duly sign and seal the same."

The Court here erred in excluding the testimony offered.

1*st*. It was competent and proper to prove, as therein proposed by complainant's counsel, to show want of novelty.

The substance of the alleged invention exists in the relation between the socket and the plate which is to set in it, and the object or thing proposed to be attained by rounding the corners is to strengthen the socket at the corners.

If such a relation between a socket and the thing to be contained therein, like a mortice and tenon, was well known in the previous state of the art, and for the described object, it was for the jury to say whether or not the alleged invention added any novelty to the previous state of the art, and the Court erred in refusing to allow evidence of such previous state of the art to go to the jury.

It is always competent in a suit on a patent, to give testimony containing a comparison of an alleged invention, with what existed in the previous state of the art, for the purpose, among other things, of ascertaining what the patent should be limited to as the invention of the patentee, so as to understandingly compare therewith any particular prior invention which may be put in evidence, all for the purpose and to the end of testing the novelty of the invention which the patent shall be construed to cover.

Curtis on Patents, sections 31 to 41, inclusive, and cases there cited.

M'Cormick v. *Seymour*, 2 Blatch, 240–243.
Stimpson v. *Woodman*, 10 Wallace, 117.
Larabee v. *Cortlan*, 3 Fish, Pat. Cases, 5.

2*d*.—This evidence was competent and proper to show want of patentable invention on the part of the patentee.

2

II.

The Fifth Exception, folio 43 of the Record, was well taken.

The request of the defendant's counsel and the ruling of the Judge were as follows:

> Thereafter, in the re-examination of said witness, Nathan W. Spaulding, he testified in evidence to the jury as follows:
>
> "Q. You say that the defendant was underselling you?
>
> "A. Yes, sir.
>
> "Q. Do you know that fact, if so, how?
>
> "A. I know it from the fact of my customers coming to me and getting my prices, and reporting to me that they went to their house and got their prices.
>
> "Counsel for defendant:
>
> "He is all the time bringing in hearsay testimony, your Honor.
>
> "Q. How can you say we were underselling you if you don't know anything about it of your own personal knowledge?
>
> "A. The same way that any parties will know the market price, and what things are thrown upon the market. There is a way we have of knowing without going to the place and pricing the goods ourselves.
>
> "Q. Did you personally know at what prices we were selling our saws?
>
> "A. Personally—that is from my own inquiry—I did not.

"Q. All you know upon that subject is what you were told by your customers, as I understand?

"A. Yes, sir."

"Thereupon, counsel for the defendant moved the Court to strike out all of the testimony of said witness in regard to such supposed underselling of the defendant, on the ground that the same was merely hearsay, and was for that reason incompetent; but the Court refused to strike out the same, to which ruling of the Court the defendant's counsel then and there, duly excepted and did then and there tender this his bill of exceptions to the Court to sign and seal, and the Court did then and there duly sign and seal the same."

The Court here erred in refusing to grant the motion of the defendant's counsel.

The testimony admitted by the Court, being hearsay, ought to have been stricken out.

This testimony applied directly to the question of damages, and was relevant and important on that question alone.

One way by which an infringer damages a patentee, is by selling the patented article for a less price than that of the patentee, and evidence of such is always very influential with the jury.

The evidence admitted subject to the exception was only hearsay, and was of a nature calculated to enhance the damages to be found by the jury.

It was improperly admitted and should have been rejected as requested.

Greenleaf on Evidence, sec. 99, and cases.

III.

The Sixth Exception, folio 45 of the Record, was well taken.

The offer by defendant's counsel, objection by plaintiff's counsel, and ruling of the Court, were as follows :

> "And thereafter in the further progress of the trial of said action in support of the issues thereon on the part of the defence, the counsel for the defendant read in evidence to the Court and jury Letters Patent of the United States of America, bearing date September 12, 1865, issued to James E. Emerson, of which a full, true, and correct copy is hereto annexed, marked Exhibit "C," and is hereby made a part hereof; and also read in evidence to the Court and jury certain other Letters Patent of the United States of America, bearing date August 28, 1866, issued to the American Saw Company, of which last-named Letters Patent a full, true, and correct copy is hereto annexed, marked Exhibit "D," and is hereby made a part hereof, and did then and there exhibit in evidence to the Court and jury circular saws with detachable teeth inserted therein, made under said two last named United States Letters Patent, which are the same saws claimed in this action to be an infringement on the alleged right of the Plaintiff (correct models of which were exhibited in evidence before the Court and jury); and thereupon the counsel for the defendant, for the purpose of repelling and disproving the claim of novelty and originality in the discovery of the alleged invention described in the

said Letters Patent issued to the plaintiff, and hereto annexed, and marked Exhibit "A," did offer to read in evidence to the Court and jury a duly certified copy of certain other United States Letters Patent, bearing date, and purporting to have been issued on June 19, 1855, to Jonah Newton by the United States of America, of which said last named Letters Patent a full, true, and correct copy is hereunto annexed, marked Exhibit "E," and is hereby made part hereof.

"But an objection thereto being made by counsel for the plaintiff, that said Letters Patent to Jonah Newton were incompetent and irrelevant, the Court ruled that the said last named Letters Patent to said Jonah Newton were not for the same invention described and claimed in the said Letters Patent issued to the plaintiff, hereto annexed, marked Exhibit "A;" that the said Letters Patent to said Jonah Newton were for a rotary chisel, and not a circular saw, or any saw, and were inadmissible, and did thereupon exclude the said Letters Patent to said Jonah Newton from the evidence; to which ruling and decision of the Court the counsel for the defendant did then and there duly except, and did then and there tender to the Court this bill of exceptions to sign and seal, and the Court did then and there duly sign and seal the same."

The Court erred in excluding the Newton patent.

It was excluded when offered in evidence, folio 46 of the Record, and the Court, in its charge to the jury, folio 144, instructed them thus: "The Court has decided that the instrument described in that patent bears no relation or similarity to the invention or matter here in controversy, and ex-

cluded it from the case, so that you have nothing to do with that question."

This Newton patent was earlier in date than either Spaulding's patent or the time of his alleged invention, and was proper evidence to prove want of novelty.

It was proper evidence to go to the jury and to be made the subject of testimony as to its contents and their relation to the plaintiff's alleged invention.

Determining the similarity or dissimilarity in the contents of two patents belongs to the province of evidence, and not to that of construction, and is for the jury and not for the Court.

Bischof *vs.* Wethered, 9 Wallace, 812.

The name applied to a thing described in a patent does not determine its character or affect its relation to some other patented thing.

The Bridge Proprietors *vs.* The Hoboken Company, 1 Wallace, 116.

It is immaterial what name is given to the machine or thing described in the Newton patent. The Court below seems to have excluded this patent for the reason of the thing patented not being called a saw, and because it is stated in the patent as being used for cutting tongues, grooves, mortices, etc.

The Newton patent calls the invention a "new and useful method of securing cutters to rotary discs or plates," and states its object to be for "cutting tongues and grooves, mortices," etc.

Cutting grooves or mortices or tongues by the Newton rotary disc is merely sawing them. The teeth of all rotary

saws has a cutting edge, and these teeth in sawing, cut. The cutting constitutes the sawing.

The Court in ruling out the Newton patent, because of the thing described therein being called a disc for cutting grooves, etc., instead of being called a saw, completely ignored the well-settled and familiar rule of law—that the double use of a machine, that is a new use of an old machine is not patentable.

Curtis on Patents, sections 50–56 inclusive, and cases there cited.

Laws Digest, page 254, sections 6, 7, 8.

Ames *vs.* Howard, 1 Sum., 487.
Bean *vs.* Smallwood, 2 Story, 411.
Hotchkiss *vs.* Greenwood, 4 McLean, 461.

An examination of the Newton patent, in connection with the Spaulding patent, shows that all Spaulding did was to call the Newton machine a saw and then take a patent for it, because the teeth or cutters in the Newton disc are set on curved lines.

It is obvious that if one were to use exactly a Newton machine for sawing it would come directly withing the language of the plaintiff's patent, and be an infringement upon it.

That is, the Spaulding patent is for a Newton machine when used for sawing. It requires no change whatever in the machine to bring it within the Spaulding patent, but using it only for another purpose, brings it fully within the language of the Spaulding patent. That is the Spaulding patent is for another use of an old machine.

IV.

The Seventh Exception, folio 47 of the Record, was well taken.

The offer by defendant's counsel, the objection by plaintiff's counsel, and the ruling of the Court, were as follows:

> "Thereafter, and after the counsel for the defendant had read in evidence the several patents and exhibits in evidence to the Court and jury, the circular saws, as stated in exception hereinbefore marked No. 6, the counsel for the defendant, in addition to offering to read in evidence the said Letters Patent to Jonah Newton as in said exception No. 6 is set forth, did further, and in connection therewith, offer to prove to the Court and jury, by competent experts then ready in Court to be sworn, that the process of said Newton Patent, and of the machine made thereunder, and of the result produced thereby, are the same process, machine, and result as are involved in said patent of plaintiff, hereto annexed, marked Exhibit 'A;' that saws are made under the said Newton Patent, and are in practical operation (and then and there, furthermore, did offer to exhibit in evidence to the Court and jury, saws made and operated according to said Newton Patent); that the machine made under said Newton Patent rotates in precisely the same manner and with the same effect as a circular saw, and that what in said Newton's Patent are designated cutters perform the same functions as the detachable teeth, described in said Letters Patent hereto annexed marked Exhibit 'A,' and accomplish the same result; and to prove to

the Court and jury, by competent experts, that said cutters are nothing in reality but detachable saw-teeth, inserted on circular lines, and rounded at the base and inserted in circular sockets, and secure an equal distribution of the pressure on the said cutters, over and upon the circular sockets in which they are set, and thus prevent fracture of the disc or plate.

"But the Court, upon the objection of plaintiff, then and there refused to admit such evidence, or any part thereof, and excluded the same from the consideration of the jury; to which ruling of the Court the counsel for the defendant did then and there duly except, and did and there tender this his bill of exceptions to the Court to sign and seal, and the Court did thereupon duly sign and seal the same."

The Court here erred in excluding the evidence offered. The evidence offered was

1*st.* To prove that the mode of operation of the machine described in the Newton patent, was the same as that of Spaulding's machine.

2*d.* That it produced the same result.

3*d.* That saws were made and were in practical operation under the Newton Patent.

4*th.* That the machines made under the Newton Patent, rotate in the same manner, and with the same effect, and perform the same function as rotating saws.

5*th.* That the so-called cutters in the Newton Patent, are nothing but detatchable saw teeth rounded at the base, and inserted in circular sockets in the same way and for the same purpose as claimed by Spaulding.

Now it is plain, and beyond all doubt, that this testimony in connection with the Newton Patent, would prove a prior existence of such a machine as is covered by the Spaulding Patent, and would therefore invalidate that patent. It follows, that in principle, as well as by authority, this evidence should have been admitted, and, together with the Newton Patent, submitted to the jury.

V.

The Eighth Exception, folio 49 of the Record, was well taken.

The offer by defendant's counsel, the objection of plaintiff's counsel, and the ruling of the Court, were as follows:

> "Thereafter, in the further progress of the trial, the counsel for the defendant offered to read in evidence to the Court and jury, from the deposition duly taken of Newton Crawford (an expert in the various kinds of saws known, and an expert in machinery and mechanics, who had been for years an examiner of patents for inventions in machines and applications therefor in the United States Patent Office at Washington, D. C., and who first carefully examined a duly certified copy of the Letters Patent to the plaintiff hereto annexed, marked Exhibit "A," and stated that he fully understood the same), the following question to said Newton Crawford, and his answer thereto, for the purpose of ascertaining the meaning, as a term of art, of detachable teeth inserted in circular saws on circular lines, and the meaning of sockets or recesses in circular saws

formed on circular lines; which question, and the answer thereto, were in the words following:

"Q. State whether or not the recesses or sockets for the reception of teeth which are represented in the copy of the Spaulding Reissue (Exhibit "A," hereto annexed) are in circular lines.

"A. I find upon examination that there are in the recess and upon the tooth, circular forms interrupted and intersected by right lines, not having any continuous circular line.

"Q. Can it be properly said that a recess is in a circular line when only the two lower corners are rounded off, and the two rounded corners are connected by a bottom straight line, and having straight lines extended on either side from the rounded corners to the top of the recess?

"A. I should say not, because the straight lines between the rounded corners at the bottom of the recess and the straight lines upon the two sides of the recess, form a portion of the recess, as well as the rounded corners.

"But, on objection of the plaintiff's counsel thereto the Court excluded said questions, and every of them, as irrelevant and incompetent; to which ruling of the Court the counsel for the defendant then and there duly excepted, and did then and there tender this his bill of exceptions to the Court to sign and seal, and the Court thereupon did then and there sign and seal the same."

The Court erred in excluding the testimony offered:

1st. The claims in the Spaulding Patent are limited to set-

ting teeth on circular lines, "substantially as and for the purpose herein set forth."

2*d*. The lines described in the patent on which the teeth are set, are only circular at the corners.

3*d*. The lines on which defendant's saw teeth are set, are entirely circular.

It was a question as to whether or not the defendant's saw teeth were set on circular lines substantially as "set forth" in the Spaulding Patent. This was a question of fact.

Testimony of experts was proper and admissible, to prove whether or not the language employed in the Spaulding Patent included the circular lines on which defendant's saw teeth were set.

This is precisely the kind of evidence which the Court excluded, subject to the 8th exception.

VI.

The Ninth Exception, folio 51 of the Record, was well taken.

The offer of the defendant's counsel, the objection of the plaintiff's counsel, and the ruling of the Court, were as follows:

> "Thereafter, in the further progress of the trial of said action, and for the purpose of disproving infringement, the counsel for the defendant offered to prove to the Court and jury, by competent experts then ready in Court to be sworn and examined, that the saws used and sold by the defendant, made under the

said United States Letters Patent, issued, one September 12th, 1865, to James E. Emerson, and the other issued August 28th, 1866, to the American Saw Company, and hereinbefore marked respectively Exhibit "C" and "E," differ in form, and in the mode of insertion therein of detachable teeth, from the saws of plaintiff, made according to his Letters Patent, hereto annexed, and marked Exhibit "A;" and that such difference in the form and mode of insertion of the detachable teeth were productive of new and beneficial results, not produced by the saws of the plaintiff, or the manner of insertion of the teeth as claimed in and by said Letters Patent of plaintiff; that the back of the detachable tooth of plaintiff's circular saws was formed on a straight line, whereas the back of the tooth of the defendant's saws, manufactured according to said patents, marked "C" and "D," was rounded, and the base of the tooth was formed on a straight line; that in consequence of the back of the tooth being thus rounded, it was more firmly held in its position, and the plate of the saw much better protected thereby from the friction of the sawdust, and rendered more durable.

"But on objection of plaintiff's counsel thereto, that the same was irrelevant and immaterial, the Court refused to admit such offered testimony, or any part thereof, and excluded the same from the consideration of the jury; to which ruling the counsel for the defendant then and there duly excepted, and did then and there tender this his bill of exceptions to the Court to sign and seal, and thereupon the Court did then and there duly sign and seal the same."

The Court erred in refusing to admit the evidence offered.

Here the defendant proposed to prove substantial difference between what was claimed by the Spaulding patent and what he used; that is, differences in the form and mode of setting his saw-teeth from the form and mode described in the Spaulding patent, and that such differences were substantial and productive of new and beneficial results, not produced by Spaulding's alleged invention.

This testimony applies directly to the question of infringement, and as much so as any testimony possibly could. It appertained to a comparison of the thing described in the patent, with the thing which was charged to be an infringement of the patent.

Excluding this testimony was substantially a denial of the right of the defendant to offer testimony on the issue of infringement.

VII.

The Tenth Exception, folio 53 of the Record, was well taken.

The offer of the defendant's counsel, the objection of plaintiff's counsel, and the ruling of the Court, were as follows:

> "Thereafter in the further progress of the trial, the counsel for the defendant offered to read in evidence from the deposition duly taken in this cause of James E. Emerson, an expert, skilled in the manufacture of saws, and in the mechanical arts, the following question to said Emerson, and his answer thereto in the words following, viz.:

"Q. State the nature and extent of your knowledge of saws and saw plates, and particularly your knowledge and acquaintance with circular saws with teeth rounded at the base inserted therein, and when, where, and how you first came to see saws or saw-plates with teeth rounded at the base inserted therein; and who was the discoverer of such as you thus mention; and point out and describe the difference between such saws or saw-plates and the alleged invention of said Spaulding, and the extent to which those you mention were used.

"A. My knowledge on the point inquired of is derived from my practical study and personal experience in running, manufacturing, and repairing saws of various sorts. My first knowledge of, and acquaintance with, a saw—or rather with a circular saw with teeth rounded at the base—was in the Patent Office at Washington, in the District of Columbia, in the shape of a model in the matter of certain Letters Patent granted to Jonah Newton in 1855. This I saw and studied in 1866. Jonah Newton was the inventor and patentee. I do not know to what extent saws were manufactured or used under this Newton patent. The invention of Jonah Newton differs from that of Nathan W. Spaulding, in that the entire tooth in Newton's saw is made on a circular line, and so fitted into the plate, and is held in position by a screw-bolt passing through the plate and tooth, and screwing into a nut fitted to the front or concave portion of the tooth, while the front, back, and base of Spaulding's tooth are straight, the corners being rounded, and the tooth being held in position by a rivet passing through

the saw-plate and tooth where they come together, one-half the rivet hole being in each. The saw-plate is the same in each.

"But on objection thereto by counsel for plaintiff that the said eivdence was incompetent and immaterial, the Court excluded the same; to which ruling the counsel for the defendant then and there duly excepted, and then and there tendered this his bill of exceptions to the Court to sign and seal, and the Court did thereupon then and there sign and seal the same."

The Court erred in excluding the testimony offered.

The testimony of the witness E nerson here excluded contained proof,

1*st*. That the machine patented to Newton was in fact a saw.

2*d*. An explanation of difference in construction between the Newton machine and that of Spaulding, showing that the defendant's saw teeth were set on lines more like those in the Newton patent than like those in the Spaulding patent.

It is obvious that this evidence was both competent and material.

A radical error of the Court below was in excluding from the case the Newton patent, by assuming that its contents belonged to the province of construction by the Court, instead of to the province of evidence.

This error being fallen into, it was natural for the Court to exclude as irrelevant all expert or other evidence respecting the contents of the Newton patent, or the relation of its contents to either the Spaulding patent or to the saws used by the defendant.

VIII.

There is nothing in the instructions or charge of the Court to the jury which tends to cure the errors fallen into in excluding and admitting evidence. On the contrary, the Court's instructions to the jury were such as to add strength and prominence to those errors, and render them more influential and effective, than they otherwise might have been, with the jury.

In the instructions to the jury, the Court used, page 36, folio 116 of the Record, the following language :

> "Prior to this invention, so far as is ascertained or shown, detachable teeth were inserted upon square lines; the recess in which the tooth was inserted being a right angle, and the tooth, of course, corresponding to the recess, and having square corners. The difficulty in the working of these teeth was, that the pressure was thrown upon a single point in the recess —the back right angle resulting generally in a crack in the saw-plate."

Here the Court ignored the evidence offered on the part of the defendant, tending to show prior uses of detachable saw-teeth set on curved lines. It was a question of fact for the jury, and not for the Court, as to how detachable teeth were inserted prior to the alleged invention of Spaulding.

Again, the Court, page 36, folio 119 of the Record, used the following language :

> "Now, any improvement of any tooth which is inserted in a saw in circular lines, so as to prevent the

cracking of the saw-plate, is an infringement upon the plaintiff's patent."

The question of infringement was a question of fact, and so also was the question as to what constituted infringement.

The Court here erred in deciding these questions for the jury.

Again, defendant's counsel, page 39, folio 127 of the Record, asked the Court to charge the jury as follows:

> "The fact that the alleged invention in the Letters Patent of the plaintiff described as patentable, or the subject of a patent, and that the Court so instructs the jury, are not enough to sustain the validity of the plaintiff's patent; to support the validity of that patent, the alleged invention therein described must not only be patentable, or the subject of a patent, but it must also be new and useful, and the patentee therein must be the original and first inventor thereof, and of these additional essential facts the jury are the sole and exclusive judges."

The Court erred in refusing to give this instruction to the jury.

In so doing the Court refused to tell the jury that the invention, to sustain a patent, must be new and useful, and left them with the understanding, that all that was necessary to sustain a patent, was to have patentable subject-matter.

Again defendant's counsel, page 39, folio 129 of the Record, prayed the Court to charge the jury as follows:

> "The diagrams accompanying the specifications attached to the plaintiff's Letters Patent, indicate the form and nature of the invention that the plaintiff desired to secure by Letters Patent; and if the detach-

able teeth used in the defendant's saws are not substantially the same, and do not operate on substantially the same principle, they are no infringement upon the plaintiff's rights."

The Court erred in refusing to so charge, leaving the jury with the impression that the defendant's detachable saw teeth need not be substantially like the plaintiff's to constitute an infringement.

Again, defendant's counsel page 40, folio 131 of the Record prayed the Court to charge the jury as follows:

"Where form of the teeth is of the essence of the alleged invention, or of the combination involved in the alleged invention, there is no infringement, unless the defendant use substantially the same form described in the Letters Patent."

The Court erred in refusing to give this instruction to the jury.

Curtis on Patents, 3d Ed., sec. 44, and cases there cited.

It is not every change of form or proportion which is held not to be a patentable invention, but only where it is *simply* a change of form, or a *mere* change of form. "If by changing the form and proportion a new effect is produced, there is not simply a change of form and proportion, but a change of principle also. The question will be, whether the change has produced a different effect." This question is clearly a question of fact for the jury.

Again, defendant's counsel page 40, folio 132 of the Record prayed the Court to charge the jury as follows:

> "Unless the detachable teeth of the defendant are substantially the same as those described in the plaintiff's Letters Patent, and operate substantially in the same manner, they constitute no infringement on the rights of the plaintiff."

The Court erred in refusing to give this instruction to the jury.

There could not be an infringement unless the teeth of the defendant were substantially the same as those of the plaintiff, because if the teeth were substantially different the sockets would also necessarily be substantially different, and it would follow that the combination of the two would be substantially different. Here again, the refusal of the Court to instruct the jury as requested left the jury under the impression that neither the teeth, sockets, nor the combination of the two employed in defendant's saws, need be substantially the same as those of the plaintiff, to constitute an infringement.

Again, defendant's counsel, page 41, folio 134 of the Record, prayed the Court to charge the jury as follows:

> "The subsequent Letters Patent given in evidence on the part of the defendant are *prima facie* evidence that the saws and saw teeth of defendant, if made thereunder, are no infringement on the rights of the plaintiff."

The Court erred in refusing to give this instruction to the jury.

Corning et al *vs.* Burden, 15, How. 271.

Again, defendant's counsel, page 41, folio 136 of the Record, prayed the Court to charge the jury as follows:

"If the jury believe from the evidence that, prior to the alleged invention of the plaintiff, detachable teeth inserted in circular saws with square bases, were in use and well known, and that the rounding of angular points or corners was a customary and well-known device of mechanics skilled in the business of making or mending saws, and used for the purpose of distributing the pressure, bearing, or to bear, on such angular points or corners, and arresting or preventing further fracture of the saw plate, and that this device was used in rounding the angular corners at the bases of detachable teeth inserted with square bases in circular saws, for the purpose of distributing the strain or pressure bearing on such points, and preventing or arresting fracture in the saw-plate, and that the use of such device in this manner and for this purpose would be, and was, used by mechanics ordinarily skilled in the business, and did not involve inventive power, but only mechanical skill, then the plaintiff was not the original and first inventor of his alleged invention, and they will find for the defendant."

The Court erred in refusing to give this instruction to the jury.

This was a refusal to tell the jury that a practice prior to the alleged invention of the plaintiff of setting detachable teeth in circular saws in straight lines except the corners, and having the corners in circular lines, would not antedate the plaintiff's invention.

This is precisely the form described by Spaulding, and represented in the drawings of his patent, and if old, would clearly antedate his invention.

Again, defendant's counsel, page 42, folio 138 of the Record prayed the Court to charge the jury as follows:

> "If the jury believe, from the evidence, that prior to the alleged invention of the plaintiff, the witness Sornberger used a circular saw having detachable teeth inserted on square or rectangular bases, that in consequence of the bases of the teeth of such saw being square or rectangular at their bases, he learned from his experience they cracked the saw-plate, and he, for that reason, determined to discontinue their use, and, in their place, have the teeth of his circular saw rounded at their bases in order to avoid fracturing the saw-plate, and that after having determined so to do, he went to Spaulding, and requested Spaulding to round off the corners or angles at the bases of the detachable teeth of his circular saw for the purpose of preventing their fracturing or cracking the saw-plate of his circular saw, and so informed Spaulding, and Spaulding had not, prior thereto, discovered this mode of protecting the saw-plate, and that after Spaulding mended Sornberger's saw in the manner and for the purpose already stated, and that this was substantially the same invention claimed in the patent of the plaintiff, then Spaulding was not the original and first inventor of the alleged invention, and the jury will find for the defendant."

The Court erred in refusing to give this instruction to the jury.

Such evidence would clearly prove that a knowledge of the thing patented was not conceived by Spaulding, but was communicated to him by Sornberger.

Again defendant's counsel, page 42, folio 140 of the Record, prayed the Court to charge the jury as follows:

> "The fact of the plaintiff being the first and original inventor of his alleged invention, and the fact of its infringement, are purely questions of fact for the jury to find from the evidence; and the fact that the defendant's saws are made under a patent or patents, subsequent to that of the plaintiff, is *prima facie* evidence that they do not constitute any infringement on the alleged invention of the plaintiff."

The Court erred in refusing to give this instruction to the jury.

Both priority of invention and the question of infringement are purely questions of fact for the jury, and the existence of a patent in conformity with which the defendant's machine is made and used, is *prima facie* evidence that it does not infringe the plaintiff's patent. A patent is *prima facie* evidence of the patentee's right, and a subsequent patentee is entitled to a "like presumption in his favor."

Corning et al. v. *Burden*, 15 How., 271.

The Court in its charge to the jury, pages 43 and 44, folio 144, of the Record, uses the following language:

> "Further, a special plea is made in the answer that this was a discovery by one Newton prior to the patent of the plaintiff. The Court has decided that the instrument described in that patent bears no relation or similarity to the invention or matter here in controversy, and excluded it from the case, so that you have nothing to do with that question."

The Court erred in thus withholding from the jury all consideration of, or reference to, the Newton patent.

GEO. GIFFORD,
Counsel for Plaintiff in Error.

Supreme Court of the United States.

No. 272.

WILLIAM TUCKER, Plaintiff in Error,

vs.

NATHAN W. SPAULDING.

Brief for Defendant in Error.

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Supreme Court of the United States.

WILLIAM TUCKER, Plaintiff in Error,
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NATHAN W. SPAULDING.
No. 272.

BRIEF FOR DEFENDANT IN ERROR.

EXCEPTION No. 1.

The first exception was not well taken. The very basis of the objection was that increased extent of *manufacture* did not tend to establish the *utility* of the invention. But the record shows that the question was answered and followed up by further evidence tending to show that *all the saw-teeth manufactured* by the witness "*went into actual use* for sawing lumber."—(Printed record, p. 13, fol. 39.)

Increased use shows utility.

Adams vs. Edwards, 1 Fisher's Patent Cases, 6.
Parker vs. Hulme, Ibid., 53.
Magic Ruffle Co. vs. Douglas, 2 Fisher, 336.
Turrell vs. Illinois Central R. R., 3 Fisher, 330.

Great utility is evidence of novelty, and may even be conclusive.

Many vs. Sizer, 1 Fisher, 24, 27, and 28.
Judson vs. Moore, 1 Fisher, 556–7.

Thus the question and evidence constituted one link of competent and proper testimony tending to show novelty in the invention.

EXCEPTION NO. 2.

For exactly the same reason the second exception was not well taken. The evidence objected to was competent and proper as tending to show novelty or want of novelty, according to what the answer might be.

EXCEPTION NO. 3.

Neither was the third exception well taken. The fact that the officers of the United States Patent Office twice rejected the plaintiff's application for a patent, and afterwards, upon further investigation, granted the patent, so far from being evidence tending to show want of novelty was exactly the reverse.

The patent was ultimately duly granted and issued, and was *prima facie* evidence of the *novelty* and *utility* of the invention. It cannot be impeached by the immature opinions of subordinates in the Patent Office, expressed during the progress of the examination, which said opinions were ultimately overruled by the granting of the patent.

EXCEPTION NO. 4.

This exception is based upon the refusal of the court to allow a question to be asked the witness as to what was a familiar device in things *other than saws or saw-plates*, and was irrelevant. The lever, wheel and axle, wedge, &c., are all well known and familiar mechanical devices. The properties of each are well understood, and yet whenever any machine is improved by incorporating within it for the first time, so as to produce a new and useful effect *in or by the machine*, by either one of these well known mechanical elements, there is a patentable invention or discovery. In all the thousands of patentable inventions,

or machines, which have been made, *only well known mechanical elements* have been used, and not one of these elements has been made to produce any new kind of mechanical effect. It is not necessary that the mechanical elements used should be made to develop any new property *in themselves or their manner of working.* The new effect to be produced is not in the devices used, but in the machines to which they are applied.

Bell vs. Daniels, 1 Fisher, p. 376, first half, and cases already cited.

The questions overruled by the court were as follows:

"Question. Is it not a familiar device in practical mechanics to arrest or prevent a crack or split, by rounding the point, whenever a special pressure or strain occurs at that point, for the purpose of relieving that point, by distributing the pressure or strain on a circular or rounded line?

"If that device is not frequently used, in the use of the tenon and mortice," and "whether that device is not frequently used to prevent or arrest a crack in a stove, also in iron or glass plates?"

It is recited in the bill of exceptions that these questions were proposed "for the purpose of repelling the claim of novelty in the discovery of said alleged invention in said letters-patent described, and showing that the discovery thereof merely involved the exercise of mechanical skill, and not the power of invention."

The *novelty* of the invention described and claimed in the plaintiff's patent can only be controverted on evidence introduced in pursuance of notice given thirty days before the trial; "and, whenever the defendant relies in his defence on the fact of a *prerious invention, knowledge, or use of the thing patented,* he shall state, in his notice of special matter, *the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used.*"—(Act of 1836, section 15.)

These questions were proposed for the avowed purpose of proving a want of novelty in the invention described and claimed in plaintiff's patent; that is to say, for the purpose of proving "a previous invention, knowledge, or use of the thing patented." It is clear that such evidence for that purpose could only be introduced, after due notice, as prescribed by the statute. Otherwise the statute would be a mere nullity.

But if, for the sake of the argument, we waive this objection, the questions were wholly irrelevant and incompetent. Suppose it was "a familiar device, in practical mechanics, to arrest or prevent a crack or split, by rounding the point, whenever a special pressure or strain occurs at that point, by distributing that pressure or strain on a circular or rounded line," and that this device was frequently used in the case of the tenon and mortice, and "was frequently used to prevent or arrest a crack in a stove," or in "iron or glass plates," how could these facts, or any of them, tend, in the remotest degree, to invalidate the patent?

Inserted tooth saws, for many years past, were known to possess great advantages over solid tooth saws. These advantages, however, could not be made available on account of the tendency of the saw-plate to crack from the sockets in which the teeth were inserted. Only a partial remedy was known for the cracking of the plate, which was to make them soft, and consequently less brittle. This remedy was not a sufficient one, as it weakened the plate, and consequently made a very inferior saw.

Spaulding discovered that, by using circular lines in forming the junction of the base and sides of the sockets, or, as expressed in the patent, "at the base or other places therein where the pressure of force applies," a perfect protection against the cracking of the plate was afforded without in any degree detracting from the good qualities of the saw. According to the undisputed evi-

dence in this case, so rounding the junction of the base and sides of the socket, was a very great and important improvement upon the saws, and this was a patentable improvement.—(Section 6 of the Patent Act of 1836.)

Curtis on Patents, § 8, § 20 to § 25, § 31 to §35.

Spaulding's patent comes within that class of improvements which are called combinations, the form being one of the elements of the combination.

When Spaulding made his discovery saw-plates were old, circular lines were old, inserted saw-teeth were old, and the sockets or recesses into which the teeth were inserted were old. Yet, when Spaulding's improved saw was completed, all there was of it was the saw-plate, the inserted teeth, the socket, and the circular lines.

His improvement consisted of combining the four elements by putting the circular lines at the junction of the base and sides of the sockets, the sockets in the saw-plates, and the teeth in the sockets. His first claim is, in effect, for a combination of three of the elements only, to wit, the saw-plate, sockets, and circular lines at the said junction, the combinalion which includes the teeth as one of its parts being the second claim.

In the case of Many vs. Sizer, (1 Fisher, 17,) the only improvement was the form in which a car-wheel was cast, and it was shown that various other car-wheels had been made, each embodying some part of the patentee's form, until all of them, taken together, embodied his entire form, a part only of the form being in each of the prior car-wheels. The patent was sustained because the form produced a new effect, *i. e.*, allowed the car-wheel to cool when cast without breaking. The defendants did not cast their wheels in precisely the same shape, but so near it that they produced the same effect. The defendant's wheel was held to be an infringement of the plaintiff's patent, the difference in form being a mere attempt to evade the plaintiff's patent by obtaining the benefit of his discovery, and by substantially the same means.

In the case of Winans vs. Denmead, (15 Howard, 330,) the patent was for a peculiar form of a car-body, it being cone-shaped and designed for carrying coal. The form for the car-body was a great improvement, as the same car would carry a much larger load than with an ordinary car-body. The patent was held to be valid. The defendants in this case made their car-body pointed like a cone, but did not make it circular like a cone. Instead thereof they made it *octagonal*, or, as it is commonly termed, *eight-square*. This form was so nearly round that it produced substantially the same result as though it had been round. The Supreme Court of the United States held that the *eight-square* form embodied the plaintiff's invention, and was an infringement of his patent. The court, in this case, says: "And the property of inventors would be valueless if it were enough for the defendant to say, Your improvement consisted in a change of form. You describe and claim one form. I have not taken that, and so have not infringed. The answer is: My improvement did not consist in a change of form, but in the *new improvement* of principles or power in a *new mode of operation embodied in a form* by means of which a new or better result is produced. It was this which constituted my invention. This you have copied, changing only the form; and that answer is justly applicable to this patent."

See Curtis on Patents, § 41 and § 44.

Davis vs. Palmer, 1 Robb, 530 and 531.

Adams *et al.* vs. Edwards *et al.*, 1 Fisher, last part of page 7.

EXCEPTION No. 5.

As to the fifth exception: the third question here asked the plaintiff, (who was the witness then on the stand,) "How can *you* say that *we* were underselling?" &c., shows that the defendants were themselves drawing out the very evidence which they were moving to strike out. It is a principle too familiar to need any citation of authorities,

that a party waives all objection to evidence when he puts it in the case. After he gets it before the jury, he is too late to move to strike out, because he concludes he is better off without it. The evidence itself could touch no question but damages, and was really immaterial upon that score, and we submit that if a party gets in incompetent, but immaterial, evidence, and then moves to strike it out, it is at least a matter of discretion with the court whether to strike it out or not. Where the opposite party regards the matter as immaterial, neither objects to its coming in, nor yet to its being stricken out, but merely sits passively by, he ought not to suffer for an immaterial error which he does not assist in making. It was not our fault that the evidence came in, and it was not our fault that it was not stricken out, and we should not have to suffer for it.

We admit that we could not raise the question of immateriality if we had offered the evidence ourselves, but as we were non-acting parties, the defendant in the action should not make us suffer for an error of which he was the cause, and by which he was not injured.

It is further very questionable whether the ruling was not right. The evidence was objected to upon the sole ground that it was *hearsay*. Technically the evidence was not hearsay. At the most it was the witness' knowledge based upon hearsay. The witness testified that defendants *were* underselling him, *not* that he *had heard* they were. It then turned out how the witness knew the fact, how he learned that he was being undersold. It was from information—"the same way that any parties will know the market price," &c. A party has a right to say he knows a fact when his information is based upon "the concurrence of many voices to the same fact."

1st Greenleaf on Evidence, §101; Ibid., §108.
Avendano vs. Guy, 8 Wallace, 376.

There is an inaccuracy in the printed record, where it says, (p. 14, fol. 43): "Thereafter, in the *re-examination* of

said witness, Nathan W. Spaulding, he testified in evidence to the jury as follows."

The questions which follow were put by the counsel of the defendant below, on *cross-examination*. This is perfectly evident from the question at the commencement of folio 44, in these words: "How can you say that *we* were underselling *you*, if you don't know anything about it of your own personal knowledge?"

With this explanation of the record it is clear that the very evidence which the defendant below moved to strike out, was evidence called out by his own cross-examination.

It is true the first question, viz: "You say that the defendant was underselling you," assumes that the witness had before stated that the defendant was underselling him, but it gives no intimation whether he had so testified on his direct or on his cross-examination, and the record does not show that he had so testified at all. We deny that the witness had so testified on his examination-in-chief, and if the plaintiff in error contends to the contrary, it was his duty to set out, in his bill of exceptions, the part of his direct testimony on which he relies to support that allegation.

All that the record shows is, that the defendant below asked the witness, on cross-examination, certain questions, and then moved the court to rule out his answers, the plaintiff below, in the meantime, remaining perfectly passive, and not opposing the motion.

This point goes, in any event, only to the question of damages, and if the court decides to reverse the judgment upon any question which goes to damages only, then we respectfully ask leave, and hereby offer, that the judgment may be modified by striking out all except nominal damages, and have the judgment otherwise affirmed. We also consent to accept and abide by any terms which the court may see fit to impose upon such affirmance.

Exception No. 6.

As to the sixth exception, the patents to Emerson and and the American Saw Company were put in evidence, and the exception is not based upon any ruling in regard to them.

They were both several years subsequent in date to the plaintiff's, and could not, of course, anticipate any part of his invention.

The exception is based solely upon the ruling of the court in refusing to admit in evidence a patent granted to Jonah Newton in 1855 for an improvement, *not* in saws but in a *grooving and morticing machine.*

In this machine there is neither a saw nor a saw-tooth nor any socket for a saw-tooth. There is in it a rotary disk or hub with four *projections one-half an inch thick*, to which *cutters are bolted.*

The disk is nearly half an inch thick, about four inches in diameter, the thickness being over one-tenth of the diameter. The strength of metal precludes any idea of its ever breaking. Besides, as is stated by Emerson, the defendant's witness, (see 11th exception,) "The tendency and effect of the insertion of the Spaulding tooth are to strain the saw-plate, while *there is no such tendency in the Newton tooth.*"—(p. 19, fol. 57.)

It was this tendency "to strain the saw-plate" and nothing else, which Spaulding's invention overcame. As there was *no such tendency* in the Newton machine *there could have been no application* of Spaulding's invention, and the patent was properly ruled out.

Doubtless there are cases where the descriptions of the invention patented, upon which the trial is being had, and that which is offered as an anticipation to show a prior use may be so nearly alike that the court would submit the question of identity to the jury when the court is doubtful in its own mind whether the two are identical or not. But when the differences are so great that there is

no room to believe there is any point of identity between them the court should rule out the machine or description offered to show priority, as irrelevant. Any court would at once decide, without submitting the question to a jury, that a patent upon wooden ware did not tend to prove prior use or knowledge of a new composition of matter made up entirely of metals; and it would make no difference that a hundred witnesses would offer to swear they were in all respects exactly identical.

Exception seven shows that models were offered with the Newton patent. The court, therefore, did not need the opinion of experts to learn whether the Newton morticing machine *tended* to show want of novelty in Spaulding's patent or not. As to what evidence tends to prove, it is a question of law and is for the court to decide.

The Newton patent was a written instrument and was for the court to construe.

The court had as good a right to be assisted in its construction of the patent by the models as by the opinion of experts.

Parker vs. Hulme, 1 Fisher, 44.
Ransom vs. Mayor of N. Y., 1 Fisher, 252.
Day vs. Stellman, 1 Fisher, 487.
Many vs. Sizer, 1 Fisher, 31.
Adams vs. Jones, 1 Fisher, top 531.
Morris vs. Borritt, 1 Fisher, 463, last half.
Swift vs. Whisen, 3 Fisher, 359, last half.

Exception No. 7.

Exception seven is covered by the foregoing authorities applied with the Newton patent. The construction of the patent was a question of law, and the court was bound to decide whether the patent tended to prove want of novelty in Spaulding's invention. The court satisfied itself what the Newton patent was and what it described, and decided that it had no such tendency, and therefore ruled it out as irrelevant. The defendant could not com-

pel the court to take the opinion of his experts in place of its own in the construction of the patent. Neither ought it to have transferred the construction of the Newton patent from itself to the jury and experts. Yet this was all the defendant was asking the court to do in his offer of testimony, to the exclusion of which this seventh exception was taken.

In an action on a reissued patent a very common defence is that the reissued letters patent are void because they were not granted for the *same invention* embodied in the original letters patent. It has frequently been decided on the circuit that when this issue is presented it is the province of the court to decide the question of identy of invention by an examination and construction of the two patents, the original and reissued.

Sickles vs. Evans, 2 Fish., 417.
Carhart vs. Austin, Ibid., 543.
Middletown Tool Co. vs. Judd, 3 Fish., 141.
Hoffheins vs. Brandt, Ibid., 218.

This doctrine has been affirmed, with some explanations, by this court in a very recent case.

Seymour vs. Osborn, 11 Wall., 544, 545, 546.

Mr. Justice Clifford, in pronouncing the opinion of the court in the case last above cited, says:

"Reissued letters patent must, by the express words of the section authorizing the same, be *for the same invention*, and, consequently, where it appears, *on a comparison of the two instruments*, as *matter of law*, that the reissued patent is not for the same invention as that embraced and secured in the original patent, the reissued patent is invalid, as that state of facts shows that the commissioner, in granting the new patent, exceeded his jurisdiction." —(11 Wall., 544.)

Again:

"Letters patent reissued for an invention substantially different from that embodied in the original pat-

ent are void and of no effect, as no jurisdiction to grant such a patent is conferred by any act of Congress upon the commissioner, and he possesses no power in that behalf except what the acts of Congress confer. Whether a reissued patent is for the same invention as that embodied in the original patent or for a different one is a question for the court in an equity suit, to be determined *as a matter of construction*, on a *comparison of the two instruments*, aided or not by the testimony of expert witnesses, *as it may or may not appear that one or both may contain technical terms or terms of art* requiring such assistance in ascertaining the true meaning of the language employed.

"Where the specification and claim, both in the original and reissued patent, are expressed in ordinary language, without employing any technical terms or terms of art, the question whether the reissued patent is for the same invention as that described in the original patent, or for a different one, is *purely a question of construction*, but where both or either contain technical terms or terms of art the court *may* hear the testimony of scientific witnesses to aid the court in coming to a correct conclusion. Cases doubtless arise where the language of the specification and claim, both of the surrendered and reissued patents, is so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning. Both parties in such a case would have a right to examine such witnesses, and it would undoubtedly be error in the court to reject the testimony."

The learned judge, in support of the doctrine here announced, refers to the case of *Bischoff vs. Wethered*, (9 Wall., 812,) cited in the brief of the plaintiff in error. This is a subsequent exposition of what the court meant in said case.

It is unnecessary to say that the question presented in the case at bar by the offer of the Newton patent in evidence, viz: Whether it disclosed the *same invention* described and claimed in Spaulding's patent, is identical with the question presented when the validity of a reissued patent is assailed, on the ground that it is not for

the same invention embodied or disclosed in the original patent.

The case of Seymour vs. Osborn, above cited, clearly establishes these propositions:

I. Where the question is presented, whether or not two patents describe or disclose the same invention, it is purely a question of *construction*, to be decided by the court on an inspection of the two instruments, unless one or both of said patents contains technical terms or terms of art, which require explanation. In which case expert testimony may be introduced to explain the meaning of such terms.

II. That the decision of the court below cannot be reviewed on error, *unless*—

1st. It is apparent, from an examination of the *two instruments alone*, that the court below erred in deciding that they do or do not disclose the *same invention;* or—

2d. That one or both of said instruments contain technical terms or terms of art proper to be explained by experts, and the court below erred in refusing to admit such expert testimony.

Whether, in this case, the court below erred in deciding that the Newton patent did not disclose the same invention described and claimed in Spaulding's patent, must be determined by an examination of the two instruments, as set out in the record.

Spaulding's patent is for inserting removable teeth in a saw-plate, in *sockets* formed on circular lines, to obviate the liability of the plate to crack and break, which occurred when the teeth were set in sockets having sharp angular corners.

Newton's patent is for attaching *chisels* to a *hub*, not by setting said chisels into *sockets* of any kind, but by *bolting* them with screw-bolts to projections on the hub, and not for the purpose of obviating any liability of the hub or disc to crack or break. The chisels, it is true, are set into *concave seats* in the projections radiating from the

hub or disc, but not into *sockets*, and they are secured in their seats by screw-bolts. It would be manifestly impracticable to secure saw-teeth to saw-plates in this way. There is not thickness of metal enough, either in the plate or the teeth, to admit of it.

(See Newton's Patent and drawings, pages 59 to 61.)

Figure 3 in the drawing shows the width of the chisels, and it is manifest that one of much less width could not be attached in that way. Figures 1 and 2 show that the chisels are not attached to the hub or disc by being set in *sockets*, which have any tendency to hold them in place, without the screw-bolts. There is a slot in the curved part of the chisel, or in its shank, through which the screw-bolt passes, by means of which the chisel can be set farther out when worn away.

The court was perfectly right in deciding, upon the patents themselves, that Newton's patent did not show any invention like that described and claimed in Spaulding's patent.

Are there any technical terms or terms of art in either patent, which required any explanation by experts?

On this point it is sufficient to say, that none of the expert testimony offered by the defendant below, was offered upon the ground that either patent contained any technical terms or terms of art which required any interpretation or explanation; and we shall look in vain through the patents themselves for any such terms in either of them.

The offer (see exception 7, page 16) to prove that Newton's patent was actually a patent for a saw, &c., was simply absurd. No court is bound to permit a gross absurdity to be proved, or attempted to be proved. Suppose the patent on trial was a patent for a chemical process, and the party attempting to impeach it should offer in evidence a patent for a sewing machine, as anticipating the invention, and should offer to prove by ex-

perts that the sewing machine patent disclosed the same invention, would the court be bound to admit such absurd testimony? If so, the court would have no power to prevent an indefinite waste of time, to no purpose. The supposed case is a strong one, but not much stronger than the case at bar.

In bill of exceptions No. 7, page 16, folio 48, it is recited that the defendant offered to prove "that saws are made under the said Newton patent and are in practical operation, (and then and there, furthermore, did offer to exhibit in evidence to the court and jury saws made and operated according to said Newton patent,)" &c.

It will be observed that this alleged offer of proof does not disclose *when* the saws referred to, as having been "made and operated according to said Newton patent," were in fact so made and operated. It is manifest that a saw made during the pendency of the suit, for the very purpose of being introduced in evidence, could not be introduced to prove that Spaulding's invention was not new at the date of his patent. If introduced to prove that a saw could be made in strict pursuance of the Newton patent, which would also contain Spaulding's invention, it would be introduced to prove a manifest absurdity and impossibility. Spaulding's invention relates, exclusively, to the form of the *sockets* into which the teeth are set. Newton's patent shows *no sockets* into which the chisels or cutters are set, and does not set forth how a saw could be constructed. If, therefore, saws could ever be made in strict accordance with the Newton patent, they could not, by any possibility, contain Spaulding's invention, which consists, wholly and entirely, in the form of the sockets. It is a self-evident fact, manifest from an examination of the patents themselves, that the saws proposed to be introduced, either did not contain the invention of Spaulding, or were not made in accordance with Newton's patent.

EXCEPTION No. 8.

The eighth exception was not well taken.

The evidence of Crawford and the questions asked him, as shown in this exception, only went to the construction of Spaulding's patent, and this was a question for the court and not for the jury. The patent was not ambiguous, no terms of art were used in it, and it was to be construed by the court and the court did properly construe it.

Curtis on Patents, § 452.

Emerson vs. Hoff, 2 Blatch., 6, and authorities above cited.

EXCEPTION No. 9.

The ninth exception is not well taken. The offer was to prove by experts that the saws (not the sockets in them) made by defendants, under their subsequent patents, were different in form and the *mode* of inserting therein of detachable teeth, *from the saws* made by the plaintiff under his patent. That such differences constituted improvements over the plaintiff's invention. This offer does not undertake to aver that the defendants do not use plaintiff's circular lines in the sockets. On the contrary, by referring to the said subsequent patents, it admits and even delares the use of the plaintiff's invention. The plaintiffs patent did not depend upon how he made the *saws*. The theory upon which the offer was made was that the use of the defendants' invention was no infringement on his patent, provided they also used some other improvement of their own with it. This theory is not law.

Colt vs. Mass. Arms Co., 1 Fisher, 108.

Carr vs. Rice, 1 Fisher, 198.

Johnson vs. Root, 1 Fisher, 351.

Hays vs. Sulsor, 1 Fisher, 532.

Howe vs. Morton, 1 Fisher, 586.

Goodyear vs. Mullee, 3 Fisher, 420.

Exception No. 10.

The tenth exception is not well taken. It was only a further attempt to force a construction of the Newton patent upon the court. Although Emerson calls the Newton machine a "saw," and its cutters "teeth," still he describes what he saw, and gives the date of the patent sufficiently to show that he is referring to the Newton patent already ruled out. Unless he referred to the Newton patent the evidence was inadmissible under the pleadings and notice.

The same is true of the eleventh exception. The answer made by Emerson, already quoted, showed that Emerson's evidence did not tend to prove any anticipation by the Newton machine or patent, nor was his testimony competent or relevant to any issue before the court or jury. It did not tend to show prior use or knowledge of plaintiff's invention, nor contradict the infringement, nor reduce the damages, and was properly ruled out of the case.

Exception No. 11, page 18.

Bill of exceptions No. 11 embraces many exceptions to the ruling of the court on prayers by the defendant for specific instructions to the jury, which were refused by the court, and to instructions given by the court to the jury.

All the evidence or statements concerning evidence shown in the bill of exceptions are the following:

Evidence was introduced which tended to show that, as far back as 1824, circular saws with detachable teeth were well known and used with teeth square at the bottom and inserted into square sockets, and that the tendency thereof was, from the pressure thereon bearing on the corners, to crack the saw-plate.

All the evidence showing whether Sornberger suggested the inventions to Spaulding or not is in the bill of ex-

ceptions, and consists of the evidence of witnesses Sornberger, Ratcliff, Spaulding, and Hansford.

Evidence further tending to show that the saws with detachable teeth, which are charged to be an infringement in this action, were made under patents exhibits C and D.

Evidence which was undisputed was also introduced tending to show that prior to January, 1860, the use of detachable teeth in circular saws had never been extensive, but such use had been generally condemned because the saw-plates in which the teeth were inserted usually cracked from the sockets which held the teeth; but that since January, 1860, the use of detachable teeth inserted in sockets in saws according to the form and description contained in the plaintiff's patent ("Exhibt A") had become general. Also that detachable-tooth saws possessed many advantages over solid-tooth saws, and that the use of circular lines in forming the sockets prevented the saw-plates from cracking.

The record shows this and nothing more concerning evidence.

We invoke the following rules of law to aid us in sustaining the rulings of the court upon the instructions:

1st. No court is bound at the mere instance of a party to repeat over to the jury the same substantial proposition of law in every variety of form which the ingenuity of counsel may suggest. It is sufficient if it is once laid down in an intelligible and unexceptional manner.

Kelly vs. Jackson, 6 Peters, on page 628.

Laber vs. Cooper, 7 Wallace, page 571.

Unless the entire prayer as made ought to have been granted, its refusal is not error.

Columbian Insurance Co. vs. Lawrence, 2 Peters, page 43.

Violet vs. Patton, 5 Cranch, 142.

Brooks vs. Marbury, 11 Wheaton, 78.

Without some evidence upon a point, the court should not give an instruction concerning it. No merely speculative question should be decided.

Chirac vs. Reiwecker, 2 Peters, page 624.
Brooks vs. Marbury, 11 Wheaton, 78.

It is not error to refuse to give an instruction upon an abstract question.

Hamilton vs. Russell, 1 Cranch, 309, last end of the case.
Rhett vs. Poe, 2 Howard, page 483.

The court should not assume existence of facts which are in issue to be tried.

Montgomery vs. Erwin, 24 Ark., 540.
Duffield vs. Delancy, 36 Ill., 258.

The court should refuse an instruction if based upon a false assumption of what the evidence tended to prove.

Barron vs. Fay, 38 Vt., 705.

The court should not give an instruction if the record contradicts the fact assumed in the instruction asked for.

Strong vs. United States, 6 Wallace, 794.

Applying the foregoing rules of law to the instruction asked for and refused by the court it will not be difficult to show that the court ruled correctly.

The instruction excepted to on page 36, fol. 116, 117, (A,) was eminently proper. We have cited enough authorities to show that the invention was the subject of a patent and was patentable.

The instruction on page 36, fol., 118, (B,) is to the effect that if the defendant used the plaintiff's invention, it is immaterial whether or not he used it in connection with other improvements. It is too clearly correct to require any comments.

The instruction on page 36, fol. 119, (C,) to which exception was taken, is to the effect that the plaintiff's patent covers the use of circular lines in the saw sockets

used to prevent the plate from cracking, whether those lines are upon a larger or smaller circle. A simple reading of the patent shows this to be strictly correct, without in the least degree invoking the doctrine of equivalents.

The instructions on page 37, fol. 120, (D,) to which exception is taken, is to the effect that the defendants' patents do not, upon their faces, purport to be for any method of preventing the plates from cracking, but for other improvements. An inspection of the patents shows this to be strictly correct.

Neither is there anything incorrect in the instruction on page 37, fol. 122, (E,) to which exception is taken. The plaintiff's patent does cover circular lines of all sizes in this place, and for this purpose, and if the defendant so used circular lines he infringed the patent. This instruction does not touch the validity of the patent in any way.

The instruction on pp. 37, 38, fol. 123, (No. 1,) to which exception is taken, or rather to the modification, or addition which the court made to the instruction asked for by the defendant and given. This addition went to the construction of the plaintiff's patent and was properly made. The instruction itself might very properly have been refused, as the defendant had shown that he made and sold saws made according to certain patents granted to Emerson and the American Saw Company (Exhibits C and D). Those patents showed the circular lines in the sockets in which the teeth were inserted. Thus the defendant put in evidence and admitted a fact which proved an infringement of the plaintiff's patent. After thus admitting and proving the use of circular lines in his (defendant's) sockets, there was, upon the question of infringement, no real issue of fact for the jury to decide, and the instruction asked for was irrelevant to the case. Still it was given. The modification was proper. It correctly stated to the jury what the patent was for. This was the province of the court.

The qualification added by the court to the instruction prayed by the defendant, page 38, fol. 124, (No. 2,) to which qualification exception was taken, was to the effect that if the saw of the defendant was "substantially the same in form and principle as the saw of the plaintiff," or, in other words, if the saw manufactured and sold by the defendant actually contained the invention described and claimed in plaintiff's patent, such manufacture and sale by the defendant constituted an infringement, notwithstanding that defendant's saws might differ from the plaintiff's saw *by having improvements thereon.* Of the correctness of this there can be no doubt.

The instruction given on page 38, fol. 125, (No. 3,) to which exception was taken, was perfectly correct, being little less than an axiom. It was only saying that if the defendant's saws contained plaintiff's alleged invention then they did contain plaintiff's alleged invention.

The instructions on page 39, fol. 127, (No. 5,) asked for by defendant, to the refusal of which exceptions were taken, had already been given substantially by the court, and, in fact, all the law contained in all of the instructions asked for by defendant, and refused by the court, had been already given in the general charge. The court properly refused to repeat the instructions already given.—(See pp. 44, 45, paragraph 4.)

The instruction prayed for by the defendant, page 39, fol. 128, (No. 6,) was properly refused, because the plaintiff's patent is not a patent for a "*result,*" but a patent for certain mechanical devices to produce a result, and to produce substantially the same result by means of substantially similar mechanical devices, operating on the same principles, was a clear infringement.

The instruction refused, prayed for by defendant, on page 39, fol. 129, (No. 7,) for the refusal of which exception was taken, was properly refused, because the plaintiff was not confined to the exact circle used in his "*diagram.*" The specification and diagram must be taken together,

and the specification fully explains that the circle used may be larger or smaller.

The evidence did not justify this instruction, as the defendant used just the device covered by the plaintiff's patent, to wit, the circular lines in the socket, and there was no evidence tending to show that the circular lines used by him in the sockets produced any other or different result than those covered by the plaintiff's patent.

The question of infringement did not present any question of *substantial* identity, but the pleadings and proof showed a case of *exact* identity. It is true that, by the use of a long bottom to his saw-tooth, operating as a lever, the defendant managed to throw the strain mainly upon the back corner of the socket. In any case the larger part of the strain comes at the back corner. But at the back corner the defendant used circular lines to keep the plate from cracking, and the plaintiff's patent describes and covers the use of circular lines at the back corners of the sockets to keep the plate from cracking. So far as this instruction was nearly correct it was substantially given.

The instruction, to the refusal of which the exception on page 40, folio 130, (No. 8,) was taken, was correctly refused. It assumes as a fact that there was a change of form.

"If such change be not merely formal in the present case," it assumes as a fact that the defendants did not use the exact form which the plaintiff's patent covered. The court had no right and properly refused to assume that such was the fact directly against all the proof. There was no testimony in the case tending to support either the hypothesis or assumption of this instruction.

The same is true of the instruction to the refusal of which the exception on page 40, fol. 130, (No. 9,) was taken.

There was no pretence of any evidence tending to show that defendant prevented their saw-plates from cracking by using an equivalent for the circular lines, or

by any different device. *He used the circular lines, not an equivalent for them.* The instruction was foreign to the case.

The same is true of the next instruction refused, (fol. 131, No. 10,) to which refusal exception was taken. The form of the *teeth* was not the "essence" of the invention. It was the *form of the socket alone* which prevented the saw-plate from cracking.

Neither did the instruction on page 40, fol. 132, (No. 10,) to the refusal of which exception was taken, apply to any issue in this case.

The *teeth*, we repeat, was not the subject of the controversy, yet this instruction is confined to the "teeth" *alone*, which the plaintiff did not patent.

The instruction on page 41, fol. 134, (No. 12,) refused, to which refusal exception was taken, is incorrect in that it assumes a wrong basis.

The "subsequent letters patent" are, and upon their face purport to be, for a special improvement, and not for the whole saw or teeth. Spaulding's patent is also for a special improvement.

The special improvements patented to Spaulding are not the same in kind as those patented to the defendant's grantors. The patented means employed were different, and the objects to be effected were different.

In granting the subsequent patents, the department did not decide that the defendant's saws were no infringements of Spaulding's, because it was bound to issue the subsequent patents for the special improvements whether *other parts*, or even the same parts, of the saws infringed Spaulding's patent or not. An inventor who improves upon a machine already patented is none the less entitled to a patent for his improvement.

The court fully and correctly instructed the jury upon the points presented by this instruction.—(See p. 45, fol. 150.)

The instruction on page 41, folio 135, (No. 13,) to which

refusal exception was taken, was irrelevant to any issue of law or fact in the case. As before remarked, there was no question of equivalents or mechanical equivalents in the case. The defendant used the *circular lines as patented*, not an equivalent for them.

The same is true as to the next instruction refused, page 41, fol. 136, (No. 14,) to which refusal exception was taken. There was no testimony in the case which would make the instruction applicable.

The instruction prayed for by defendant on page 42, fol. 138, (No. 15,) had been fully given in the charge of the court to the jury.—(See page 44, fol. 146, 147, 148.)

The instruction prayed for by defendant, page 42, fol. 140, (No. 16,) and refused, is only another way of saying that if defendant or his grantor had invented an improvement after Spaulding's invention, that such subsequent invention gave defendant the right to use Spaulding's. Authorities upon this proposition have been already cited.

This instruction is also objectionable in assuming that the defendant's *entire* saws were made under the patents which only covered special local improvements in the saws.

The instruction prayed for on page 42, fol. 140, (No. 17,) and refused, is only a repetition of what has already been considered. It repeats the assumption that defendant's *entire* saws were made under the subsequent patents, and that, *therefore*, the patents are *prima facie* evidence that such saws do not infringe.

The instruction prayed for on page 43, fol. 141, (No. 18,) and refused, is irrelevant to the case, and was properly refused. Not only does the record fail to show that there was any evidence tending to prove that, in a single instance, the alleged invention of the plaintiff was known or used prior to the alleged discovery thereof by the plaintiff, but it affirmatively appears in the record, by the charge given to the jury, that the only evidence tending to controvert the prima facie proof made by the pat-

ent, that Spaulding was the first and original inventor, is the testimony of Mr. Sornberger. The whole of Sornberger's evidence is in the record, and he swears that he never did know of, or use, a saw-tooth inserted on circular lines prior to Spaulding's making them.

This instruction was, therefore, irrelevant. In its charge the court fully and correctly instructed the jury as to the effect of what Sornberger's evidence tended to prove.—(See page 44.)

M. A. WHEATON,
J. J. COOMBS,
Counsel for Defendant in Error.

Christian Reichmann's,
Improvement in Lamps, for burning Kerosine Paraffine and other Oils.

No. 21.576. Patented Sep. 21. 1858

Fig. 2.

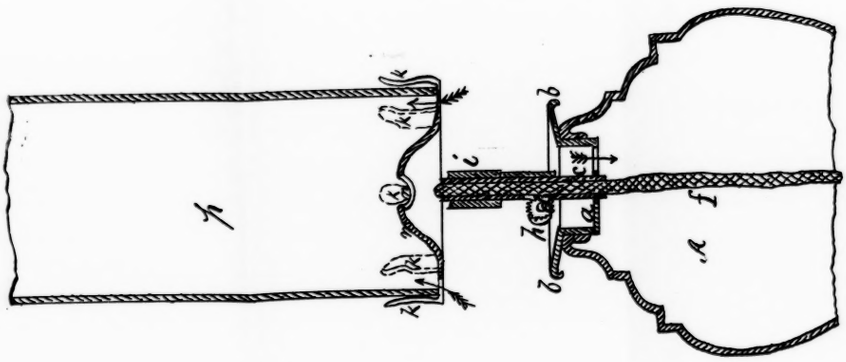


Fig. 3.

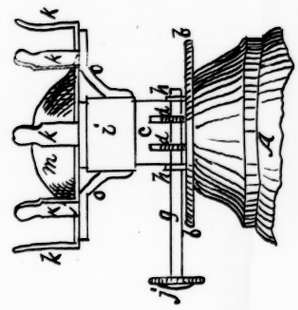
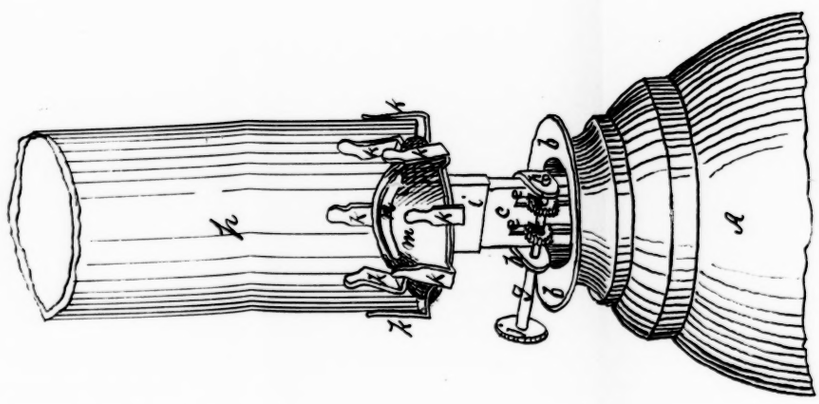


Fig. 1.

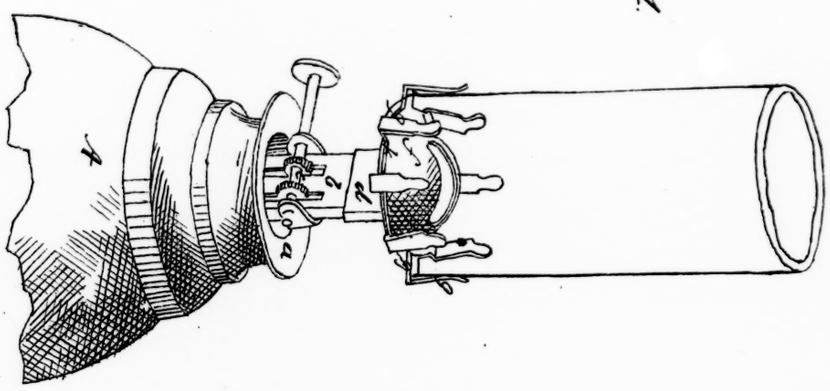


P. S. Merrill & Wm. Carleton Assignees of C. Reichman—

Impt. in Lamps. Reissued Aug. 11. 1868

No. 3,082.

Fig. 1.



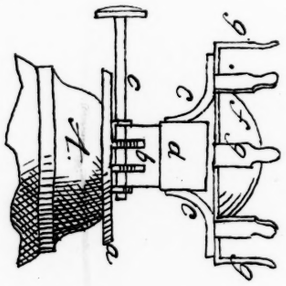


Fig. 3.

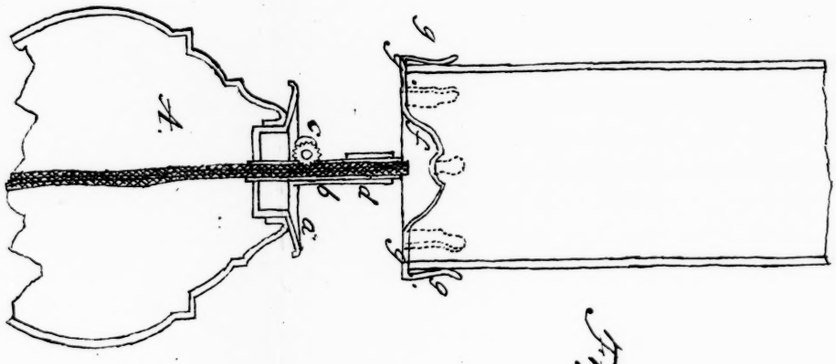
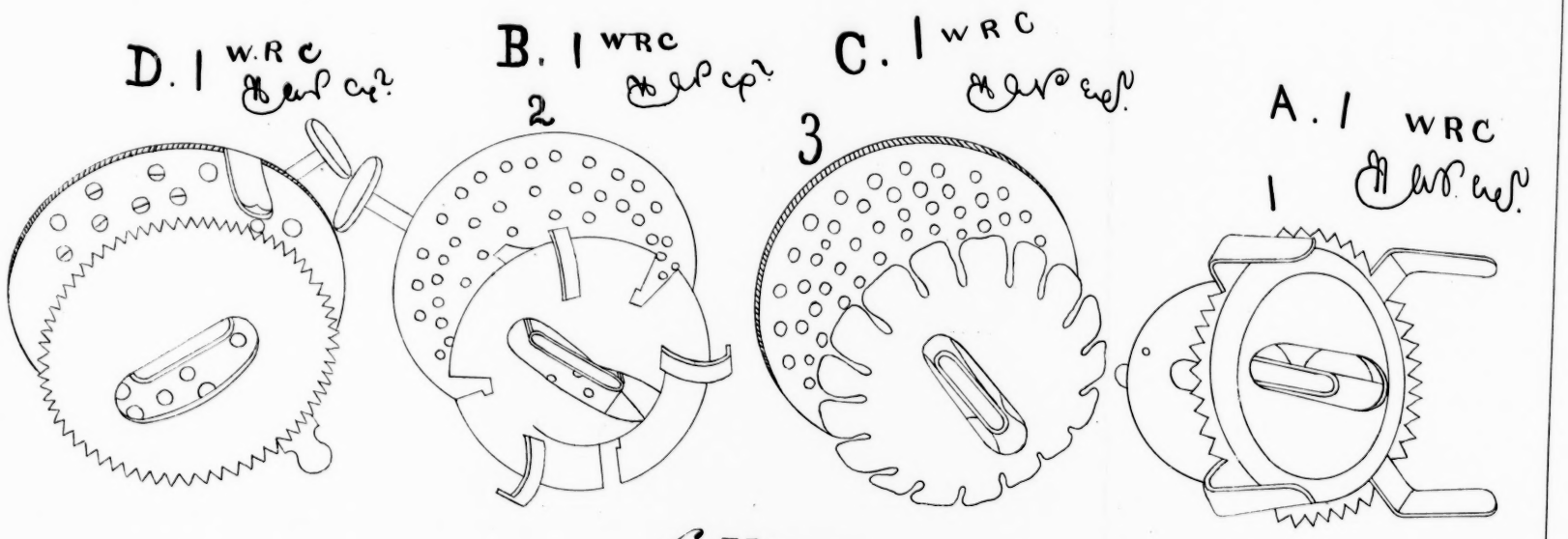


Fig. 2.

3

No. 463. { Carlton & al / vs. / Bokee. } Page 267. No. 2.



Collins's
Sun Burner Patent.

4

Exhibit L.
M R C.
Jas B Eve

No 463. {Carlton et al / vs. / Bokee.} Page 267. No 3.

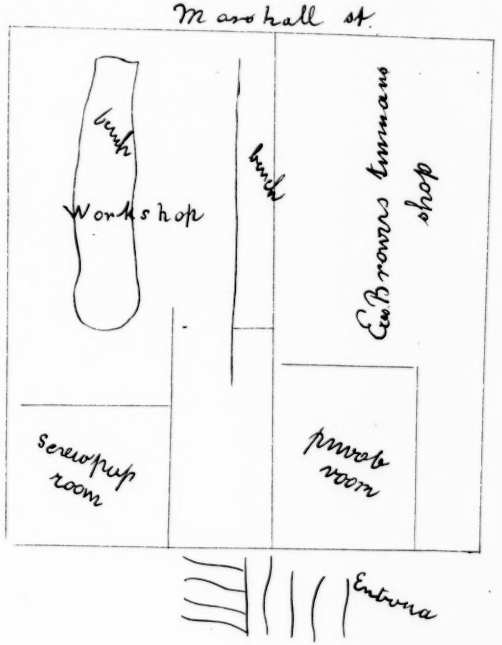


Fig. 1

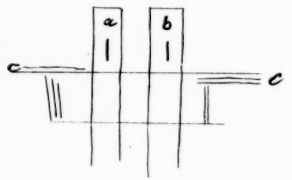


Fig. 2

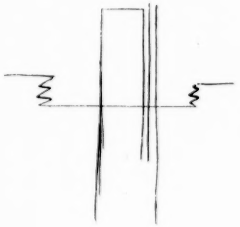
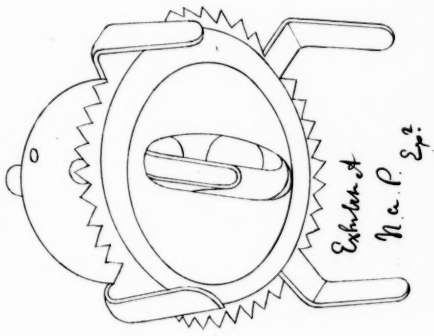
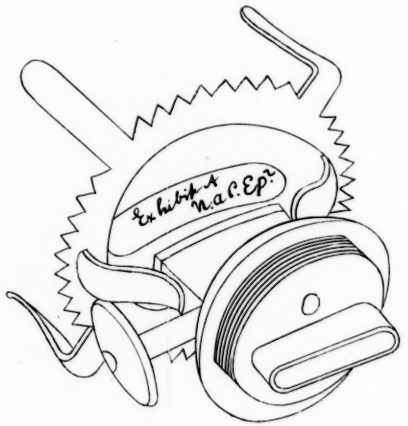


Exhibit E
Jas B Eve

6

No. 463. { Carlton et al. / vs. / Bokee } Page 267. No. 4.

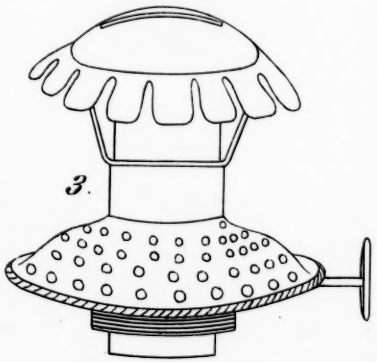




A

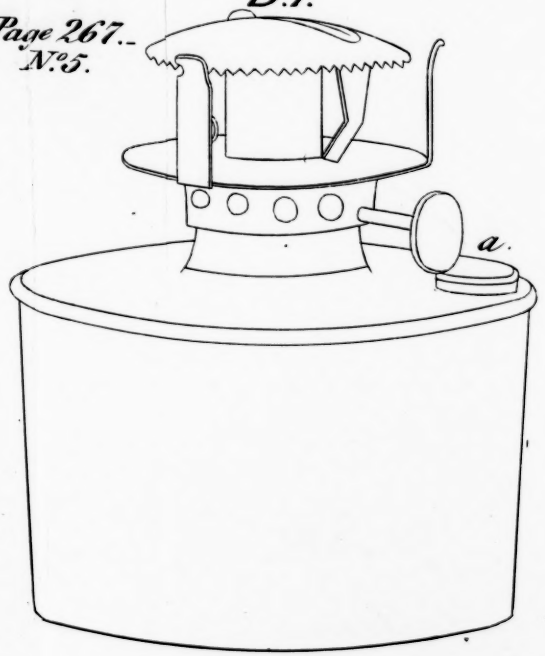
N°. 463. { Carlton et al. vs. Bokee. } Page 267.- N°. 5.

C.1.



Collins's
Sun Burner Patent.

D.1.



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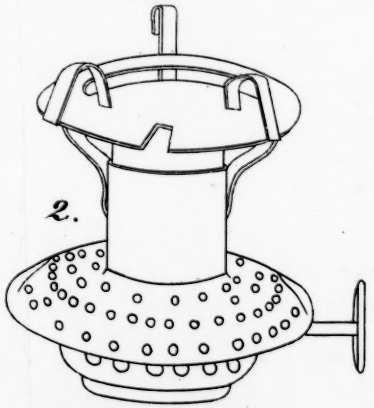
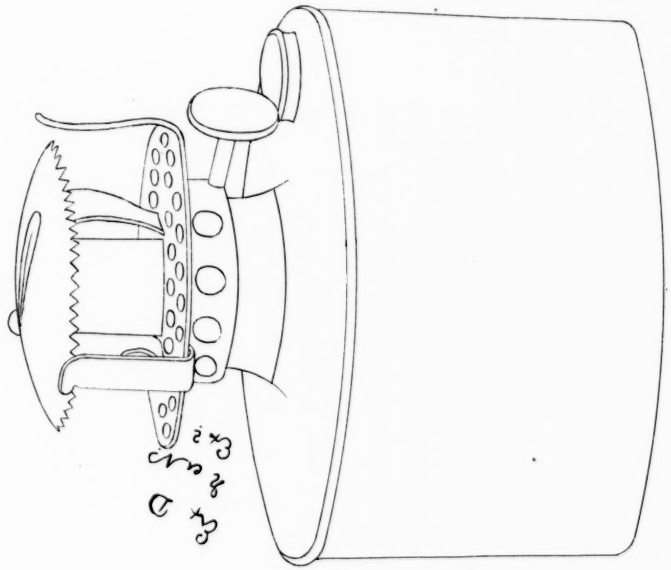
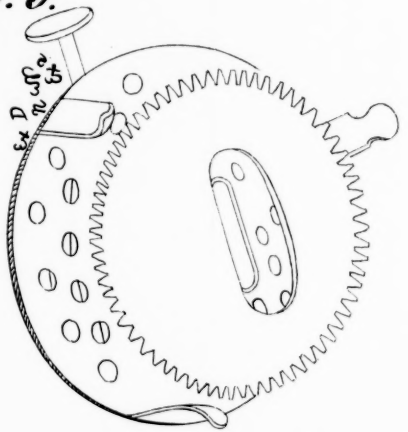
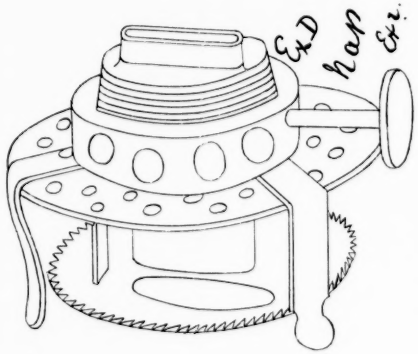


Collins's
Sun Burner Patent.

No. 463. { Carlton et al. vs. Bokee. } Page 267. No. 6.

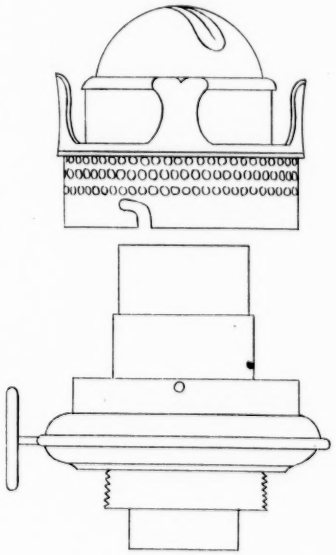






No. 463. { Carlton et al. vs. Bokee } Page 267. No. 7.

Exhibit C.



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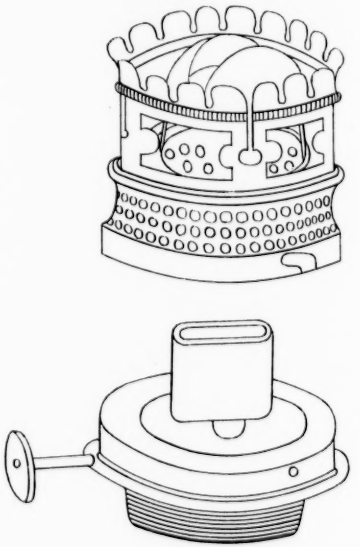
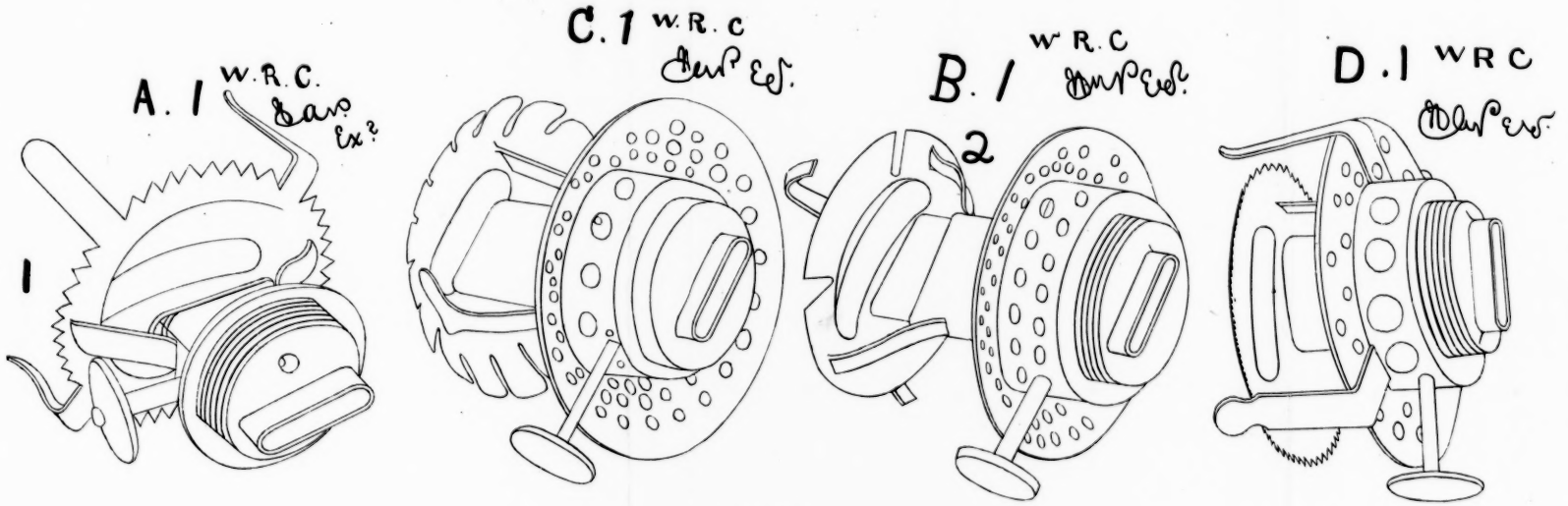


No. 463. { Carlton et al vs. Bokee } Page 267. No. 1.



Collins's
Sun Burner Patent

Christian Reichmann's,
Improvement in Lamps, for burning Kerosine, Paraffine and other Oils.

No. 21,576. Patented Sep. 21. 1858.

Fig. 2.

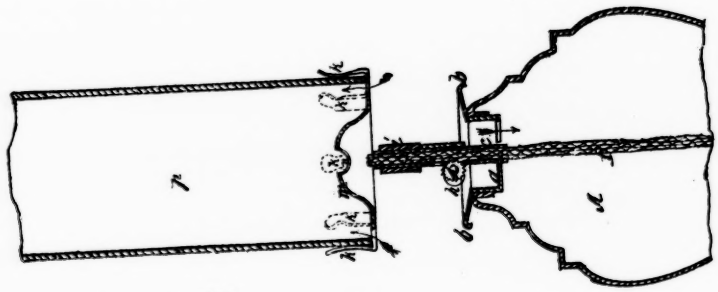


Fig. 3.

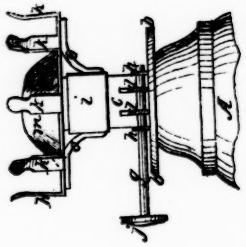
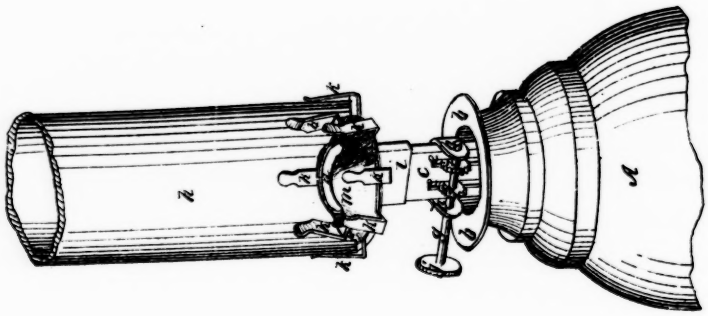


Fig. 1.



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No. 490. The Chicago & N.W. R.R. Co.
Vs.
Whiton's adm.r
Page 117.

MADISON ST.

13

11

12

132 ft.

132 ft.

RACE

66 ft.

ST.

ORCUTT & CLARK. STEAM ELEVATORS.

FREIGHT DEPOT of M. & P. div C. Railway.

25 ft. Platform

105 ft.

FREIGHT OF FICE DOOR 31 ft.

92 ft.

25 ft. Platform

200 ft.

Bump & Gray 177 ft. Dist.

264 ft.

ST.

NORTON & Co. WAREHOUSE

Scale

26 ft.

BUMP & GRAY, WAREHOUSE.

88

84

150

EPISCOPAL CHURCH.

83

149

87

132 ft.

66 ft.

ST.

BLUFF

ST.

From Walk to Depot 122 ft.

WHITON

WOODWARD

RESIDENCE

RESIDENCE

66 ft.

MARION ST.

264 ft.

OLD FREIGHT DEPOT OF G & C U R R CO.

Platform 35 ft.

30 ft.

Mrs. Burnett RESIDENCE.

Where Mr. Burnett was killed

To Switch 280 ft.

To Bump & Gray 177 ft.

To Norton & Co 264 ft.

To Church 178 ft.

M. & P. div. C. & N.W. RAILWAY.

132 ft.

132 ft.

66 ft.

CHURCH

RESIDENCE

RESIDENCE

LOUDON

RESIDENCE.

132 ft.

178

132 ft.

132 ft.

66 ft.

ACADEMY

HIGH

11

132 ft.

37

146

89

145

91

144

93

66 ft.

Railroad Crossing
Academy Street & on vicinity
Janesville Wis.

WALL ST.

66 ft.

N°. 490. The Chicago & N. W. R. R. Co.
vs.
Whiton's adm^r
Page 117.

N

W E

RACE

ST.

66 ft.

ST.

ORCUTT & CLARK, STEAM ELEVATORS

FREIGHT DEPOT OF M. & P. du C. Railway.

206 ft. 105 ft. FREIGHT OF FILE DOOR. 92 ft. 25 ft. Platform

25 ft. Platform

Bump & Gray 177 ft. Dist.

264 ft.

NORTON & Co WAREHOUSE

Scale

76 ft. BUMP & GRAY, WAREHOUSE

68

84

150

EPISCOPAL CHURCH.

83

149

87

132 ft.

66 ft.

ST.

66 ft.

13

11

12

132 ft. 132 ft.

BLUFF ST.

From Walk to Depot 122 ft.

Mrs. Burns killed

To Switch 220 ft.
To Bump & Gray 190 ft.
To Verdon 84 & 604 ft.
To Church 175 ft.

OLD FREIGHT DEPOT of G & C U R R CO.

Plat No. 25 17

30 ft.

Mrs Burns RESIDENCE

MARION ST.

C. & N. W. RAILWAY.

J. & P. du C. RAILWAY.

ACADEMY

CHURCH

RESIDENCE

RESIDENCE

LOUDON

RESIDENCE

178

132 ft.

HIGH

147 37

146 89

145 91

144 93

132 ft. 132 ft.

66 ft. 132 ft. 132 ft. 66 ft.

Railroad Crossing
Academy Street & on vacinity
Janesville, Wisconsin.

WALL ST.

MADISON ST.

13

11

12

132 ft

132 ft

BLUFF ST.

66 ft.

ORCUTT & CLARK. STEAM ELEVATORS.

FREIGHT DEPOT OF M. & P. dv. C. Railway.

200 ft.

25 ft. Platform

104 ft.

FREIGHT OF FICE DOOR 8 ft.

92 ft.

25 ft. Platform

Bump & Gray 177 ft. Disk

264 ft.

NORTON & Co. WAREHOUSE

66 ft.

Scale

BUMP & GRAY WAREHOUSE.

26 ft.

68

84

150

83

EPISCOPAL CHURCH.

149

87

132 ft.

66 ft.

WHITON

WOODWARD

132 ft.

RESIDENCE

RESIDENCE

66 ft.

MARION ST.

264 ft.

OLD FREIGHT DEPOT OF G & C U R R CO.

Rail Corner 45 ft.

30 ft.

Wm Burrus RESIDENCE.

From Walk to Depot 72 ft.

To Switch 380 ft.

To Bump & Gray 184 ft.

To Station 84 & 624 ft.

To Church 173 ft.

M. & P. dv. C. RAILWAY.

G & N-W. RAILWAY.

132 ft.

132 ft.

66 ft.

ACADEMY

CHURCH

RESIDENCE

RESIDENCE

LOUDON

RESIDENCE.

132 ft.

178

132 ft.

132 ft.

66 ft.

HIGH

132 ft.

132 ft.

147

37

146

89

145

91

144

93

Railroad Crossing

Academy Street & on vacinity.

Janesville, Wisconsin.

WALL ST.

66 ft.

Wilton's adm.
Page 117.

RACE

ST.

ST.

ST.

ST.

ST.

ST.

BLUFF

WALL

ST.

MARION ST.

ACADEMY

HIGH

13

11

12

132 ft.

132 ft.

66 ft.

264 ft.

ORCUTT & CLARK.
STEAM ELEVATORS.

FREIGHT DEPOT OF M. & P. du C. Railway.

25 ft. Platform

165 ft.

FREIGHT OF FICE DOOR 32 ft.

25 ft. Platform

200 ft.

Bump & Gray 177 ft. Dist.

NORTON & Co. WAREHOUSE.

Scale

76 ft.

BUMP & GRAY WAREHOUSE.

88

84

150

83

EPISCOPAL CHURCH.

149

87

Front Walk to Depot 122 ft.

WARD

SIDENCE

OLD FREIGHT DEPOT OF G & C U R R CO.

Platform 25 ft.

Mrs Burns RESIDENCE

30 ft.

M. & P. du C. RAILWAY.

C. & N.W. RAILWAY.

Killed

To Switch 290 ft.

To Bump & Gray 137 ft.

To Norton & Co 624 ft.

To Church 175 ft.

CHURCH RESIDENCE

RESIDENCE

LOUDON RESIDENCE

178

147

37

146

89

145

91

144

93

Railroad Crossing
Academy Street & on vacinity
Janesville, Wisconsin.

No. 4 Ill. Chicago, St. L. & N.O.R.R. Co. vs. Wilson's Admr.
page 117

"C"

The man at left stands just north of track [illegible] P. & V. R. R. Co. in area which freight train was moving North East & Man at right stands at the place of the collision [illegible]

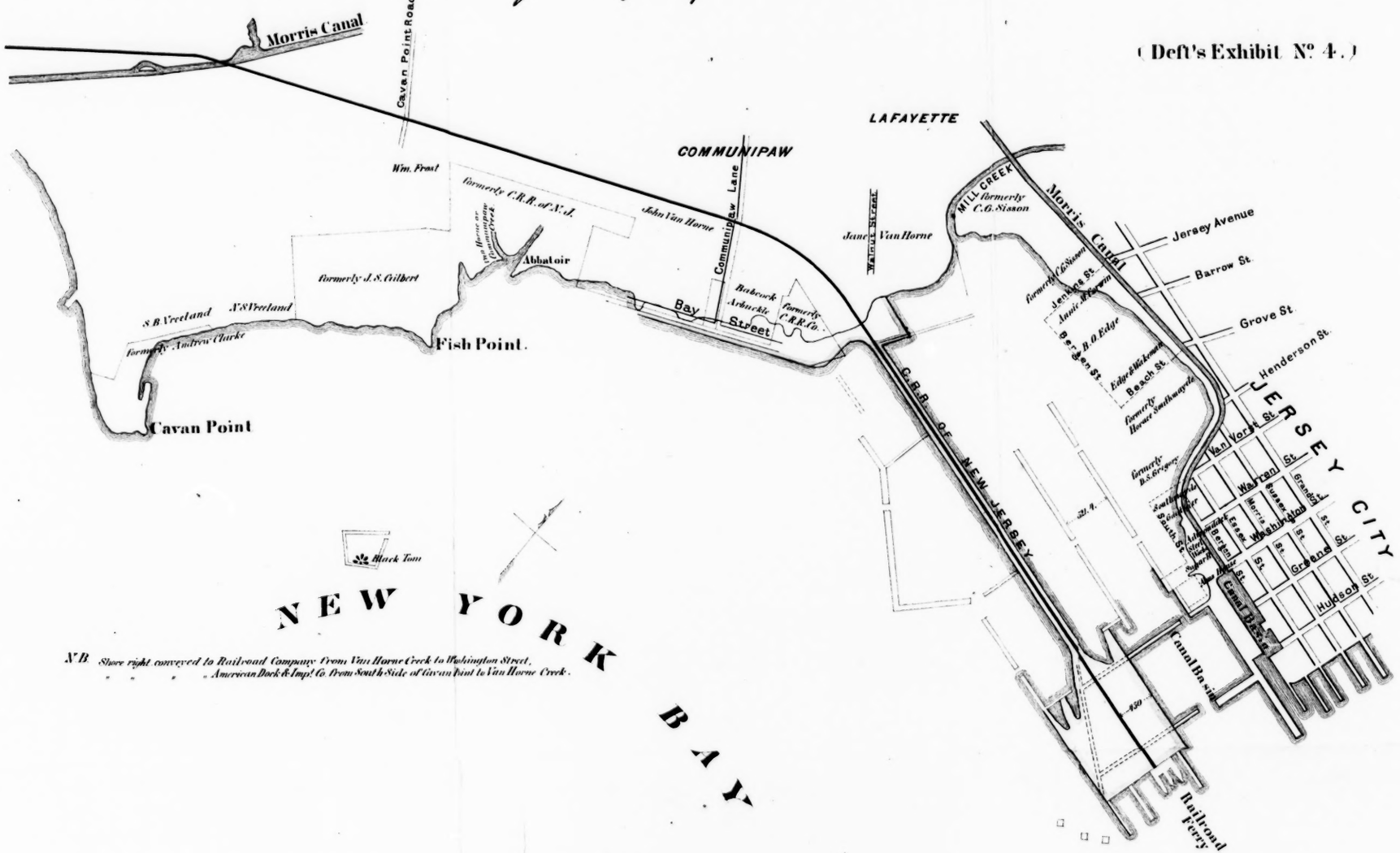
13

No 490. Chicago & N.W.R.R.Co. } Point of observation
Clinton adm^x page 11

Residence of Mr. "E"
Residence of Mr. "D"

No. 492 - People of the State of New York
Central R.R. Co of New Jersey page 12 -

(Deft's Exhibit No 4.)

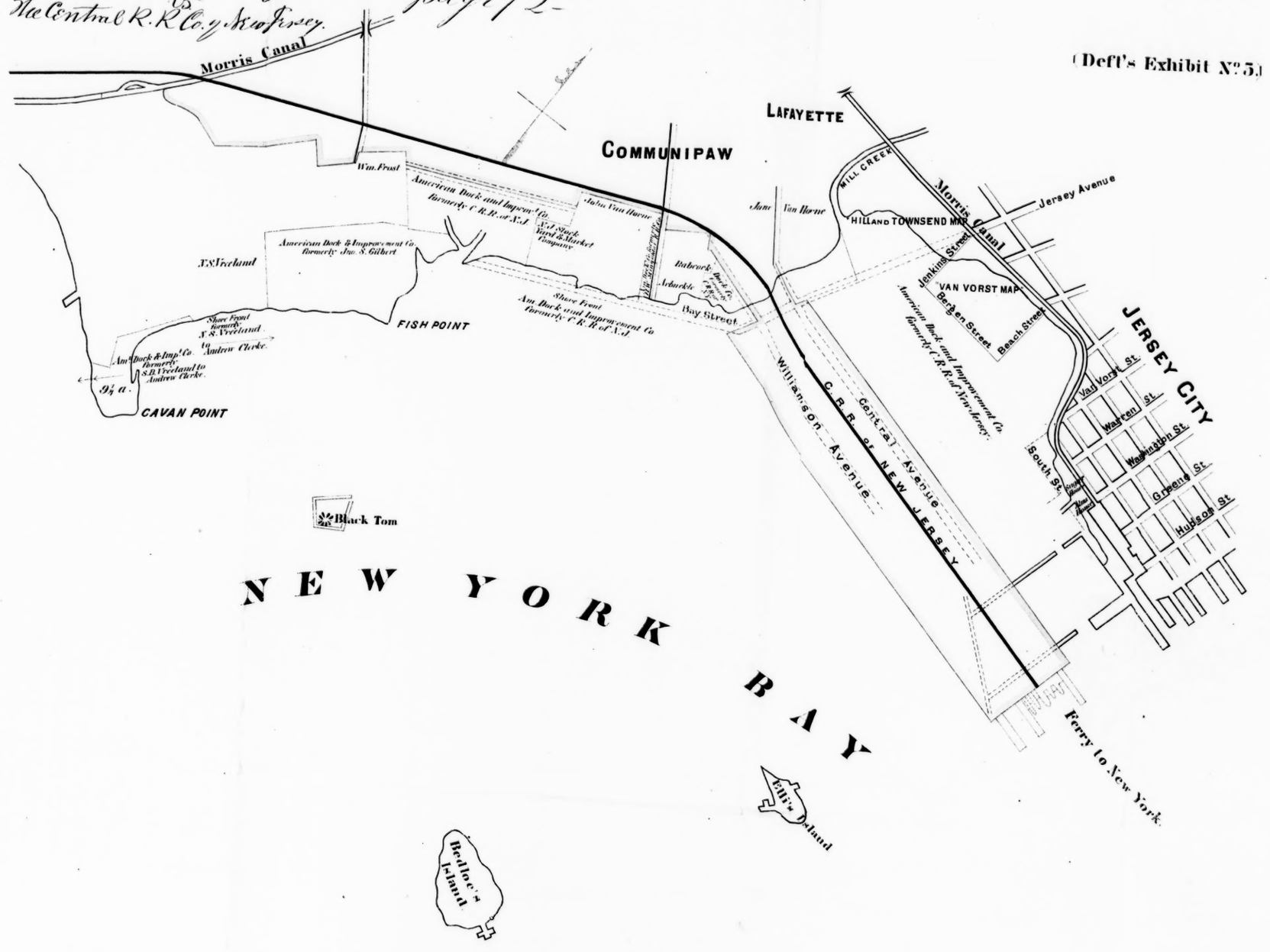


N.B. Shore right conveyed to Railroad Company from Van Horne Creek to Washington Street,
" " " American Dock & Imp't Co. from South Side of Cavan Point to Van Horne Creek.

No 1492 People of the State of New York
vs
The Central R.R. Co. of New Jersey.

page 172

(Deft's Exhibit No 5.)



IN THE SUPREME COURT

OF THE UNITED STATES.

No. 267. December Term, 1870.

HALL AND BLASLAND, et al.,
Appellants,

vs.

JOHN A. ALLEN, Assignee of William Downing, a Bankrupt,
Appellee.

MOTION TO DISMISS APPEAL

AND

POINTS, &c., IN SUPPORT OF SAME.

HENRY HITCHCOCK,
GEORGE W. LUBKE,
PRESTON PLAYER,
Of Counsel.

IN THE SUPREME COURT OF THE UNITED STATES.

NO. 267.

HALL AND BLASLAND, et al.,
Appellants,
vs.
JOHN A. ALLEN, Assignee of William Downing, a Bankrupt,
Appellee.

APPEAL FROM THE CIRCUIT COURT FOR THE DISTRICTS OF MISSOURI.

MOTION TO DISMISS APPEAL.

And now comes the above-named Appellee and moves the Supreme Court of the United States to dismiss the appeal of said Appellants in this cause granted them by the Circuit Court of the United States for the Districts of Missouri; and for the grounds of this motion, the said Appellee states—

First. That the nature of this case is as follows:

That the said William Downing was adjudicated a Bankrupt by the District Court of the United States for the Eastern District of Missouri, and the Appellee appointed and qualified as Assignee of his estate; that the said bankrupt cause was referred by said District Court to Lucien Eaton, one of the Registers in Bankruptcy of said Court: that the said Register, on the 23d day of March, 1870, certified to the Judge of said District Court, for his opinion thereon, the following question which arose before him in the course of the proceedings in said cause, and was pertinent thereto, the said question being stated, and the facts agreed to by the Appellants and Appellee, and being as follows: The parties respectively admitted (see page 3 of Transcript)—

"That the bankrupt William Downing and Richard W. Emerson were copartners under the firm name of Downing & Emerson, and, as such, dealers in boots and shoes in the city of St. Louis previous to December, 1868, on which day they dissolved by consent, Downing taking or purchasing the stock of goods and other assets of the firm, and agreeing to pay off and discharge all of its liabilities, and executing and delivering to Emerson, for his Emerson's supposed interest in the concern, his notes amounting to about $40,000; that said firm was largely indebted and insolvent; that Downing, after the dissolution aforesaid, continued, in his individual name and for his individual account, to prosecute the said business at the same place until the sixteenth day of August, 1869; that, while so doing business alone, the said Downing, in the regular course of business, disposed of part of said stock of goods, added to it by further purchases, paid off some of the liabilities of said firm, and contracted further liabilities and debts in his own name alone; that, on said sixteenth day of August, 1869, said Downing executed a conveyance (which is on file in this cause) of all his assets, including the assets of said firm, to John W. Kennan for the benefit of all the creditors of himself and said firm; that said Kennan thereafter disposed of said stock of goods, realizing about $60,000 therefor, and, when he had so disposed of it, the said Downing was proceeded against and adjudicated a bankrupt by this Court, and that said Kennan paid over to the assignee in this cause the said proceeds of the sale of said stock, which amount of money is now to be divided: that the said copartnership of Downing & Emerson has never been adjudicated bankrupt as such, nor have the persons holding claims against it released the said Emerson from liability thereon, but that said Emerson has also been adjudicated a bankrupt in the State of Massachusetts; that claims against said bankrupt Downing individually, as well as claims against him as one of the said copartnership of Downing & Emerson, have been proven and allowed against his estate without distinction, except so far as the evidences of debt upon which they were proved would show any, and that all these creditors voted for the said assignee in this case; and that, before he was adjudicated a bankrupt as aforesaid, and after the sixteenth day of August, 1870, the said Downing executed and delivered to each one of the creditors of Downing & Emerson, an agreement in the following form, to-wit:

"Whereas the firm of Downing & Emerson, which was composed of William Downing and Richard W. Emerson, was, in the month of December, A. D. eighteen hundred and sixty-eight, dissolved:

"And whereas said Emerson assigned to said Downing all his, said Emerson's, interest in the property and assets of said firm, and said Downing, in consideration thereof, gave said Emerson certain promissory notes,

and agreed to assume and pay all the liabilities and debts of said firm of Downing & Emerson, and hold said Emerson harmless from the same, and I have agreed to pay the debts and liabilities of said firm as my own private individual debts, and the party with whom the agreement is made may now have debts and claims against said firm:

Now, therefore, I, the said Downing, for value received by me of the receipt whereof is hereby acknowledged, do hereby covenant and agree with said , that I individually will pay, as my own private and individual debt, all and singular the debts, liabilities and claims against said firm of Downing & Emerson held by said

"Witness my hand and seal this day of September, A. D. eighteen hundred and sixty-nine."

It is now claimed by the creditors of William Downing, who contracted with him individually, that they alone are entitled to share in the division of said fund, on the theory that they are individual creditors, and as such are alone entitled to be paid out of said fund as individual estate, while on the other hand the creditors of William Downing, who contracted with him as a co-partner of Emerson, claim that they alone are entitled to share in such division, on the theory that they are partnership creditors, and that said fund is partnership property, it having come from said partnership originally, and having formed the capital with which said Downing was enabled to continue to do business after the dissolution of said firm; and all parties reserve the right of appeal.

The District Court gave the following opinion upon said question:

"Upon the facts submitted, the Court rules that the separate creditors of the bankrupt must be first paid in full before the partnership creditors can receive any dividend from the funds in the hands of the assignee."

The Assignee excepted to this opinion, and in due time prosecuted an appeal of the question to the Circuit Court, and that Court reversed the ruling of the District Court and ruled that all the creditors were entitled to share *pro rata* in the distribution of the estate of said bankrupt. Thereupon the Appellants brought the question by appeal to this Court.

Second. That the Supreme Court has no jurisdiction to hear said question, or to review the decision of the Circuit Court.

Third. That the action and decision of the Circuit Court is revisory and final, this cause being a question arising in the course of the administration of a bankrupt's estate.

GEO. W. LUBKE,
PRESTON PLAYER,
Of Counsel for the Appellee.

POINTS, ETC., FOR APPELLEE.

I. This is not a suit between the Assignee and a party claiming an interest adverse to him. It is a "question" arising in the District Court in the course of the proceedings in the bankrupt's cause.

II. The District Court had original jurisdiction of that question. The Circuit Court had jurisdiction to review the decision of the District Court, and that jurisdiction could be obtained by "bill, petition or *other proper process*." Appeal is the "proper process," it having brought the record of the District Court before the Circuit Court.

See 14 Stat. at Large, 518. Sec. 2 of Bankrupt Act of 1867.

III. This Court has no jurisdiction of the question which was thus at issue.

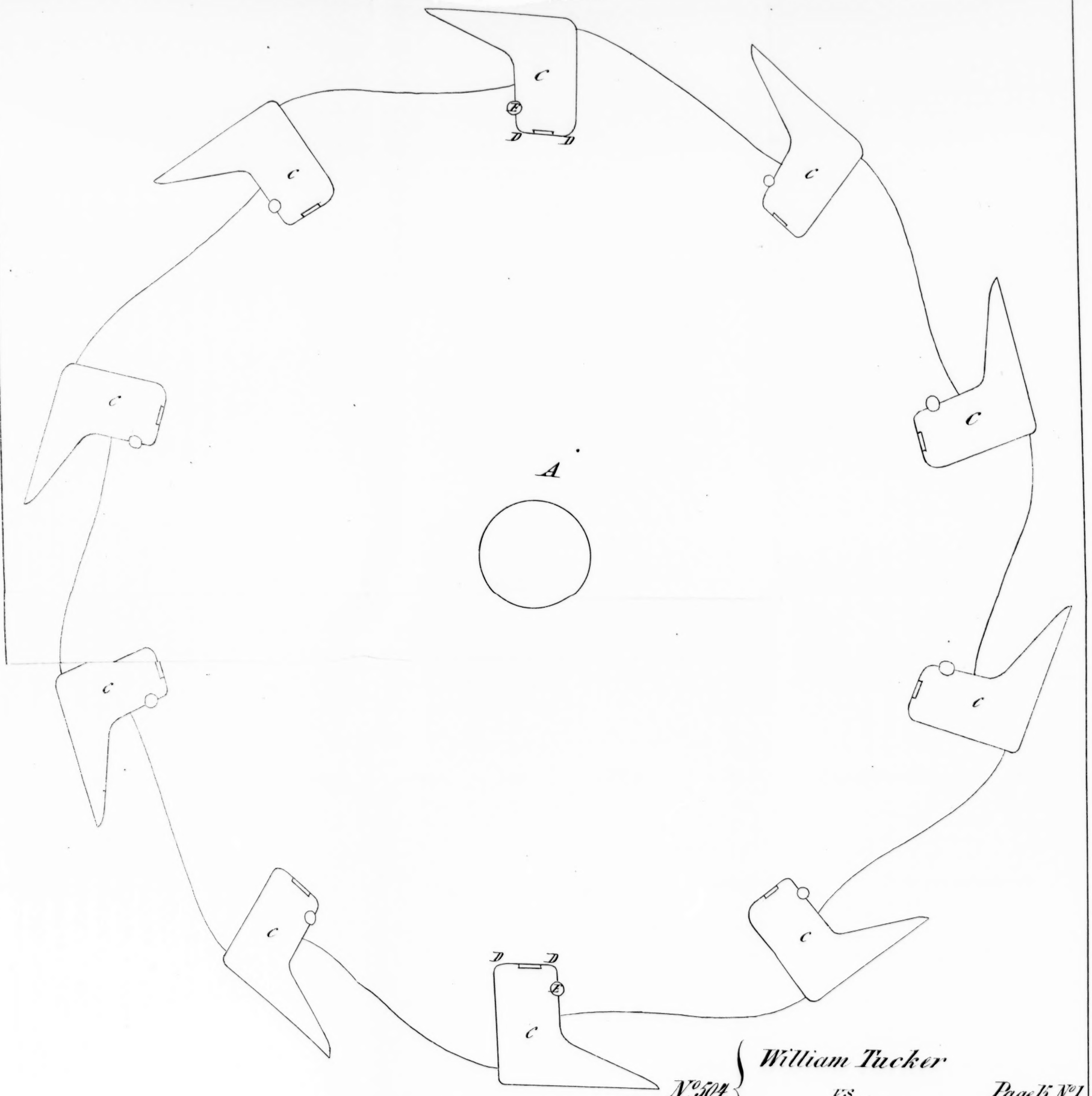
Morgan *vs.* Thornhill, 11 Wallace, p. 65.

HENRY HITCHCOCK,
GEORGE W. LUBKE,
PRESTON PLAYER,
Of Counsel for Appellee.

No. 1456.

N.W. Spaulding.
Impt. in Saws.
Reissued April 21. 1863.

Fig. 1.



No. 504. William Tucker vs. Nathan Spalding. Page 15. No. 1.

Fig. 2.

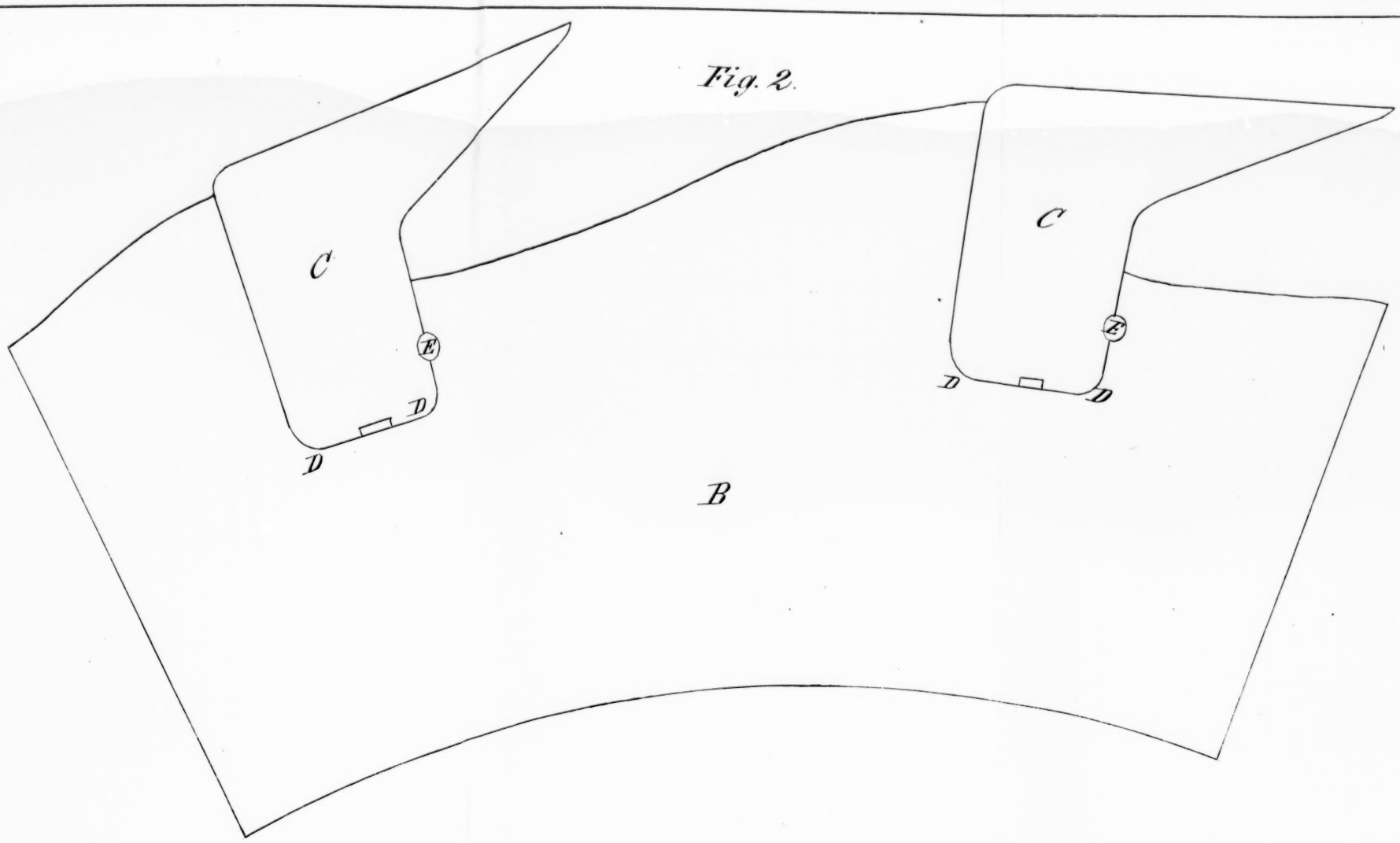
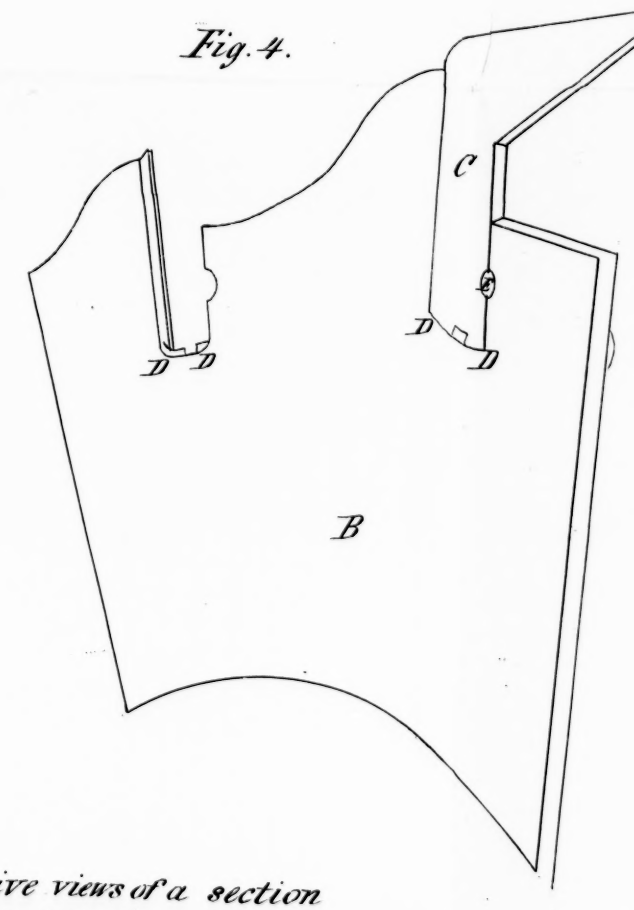


Fig. 3.

Fig. 4.

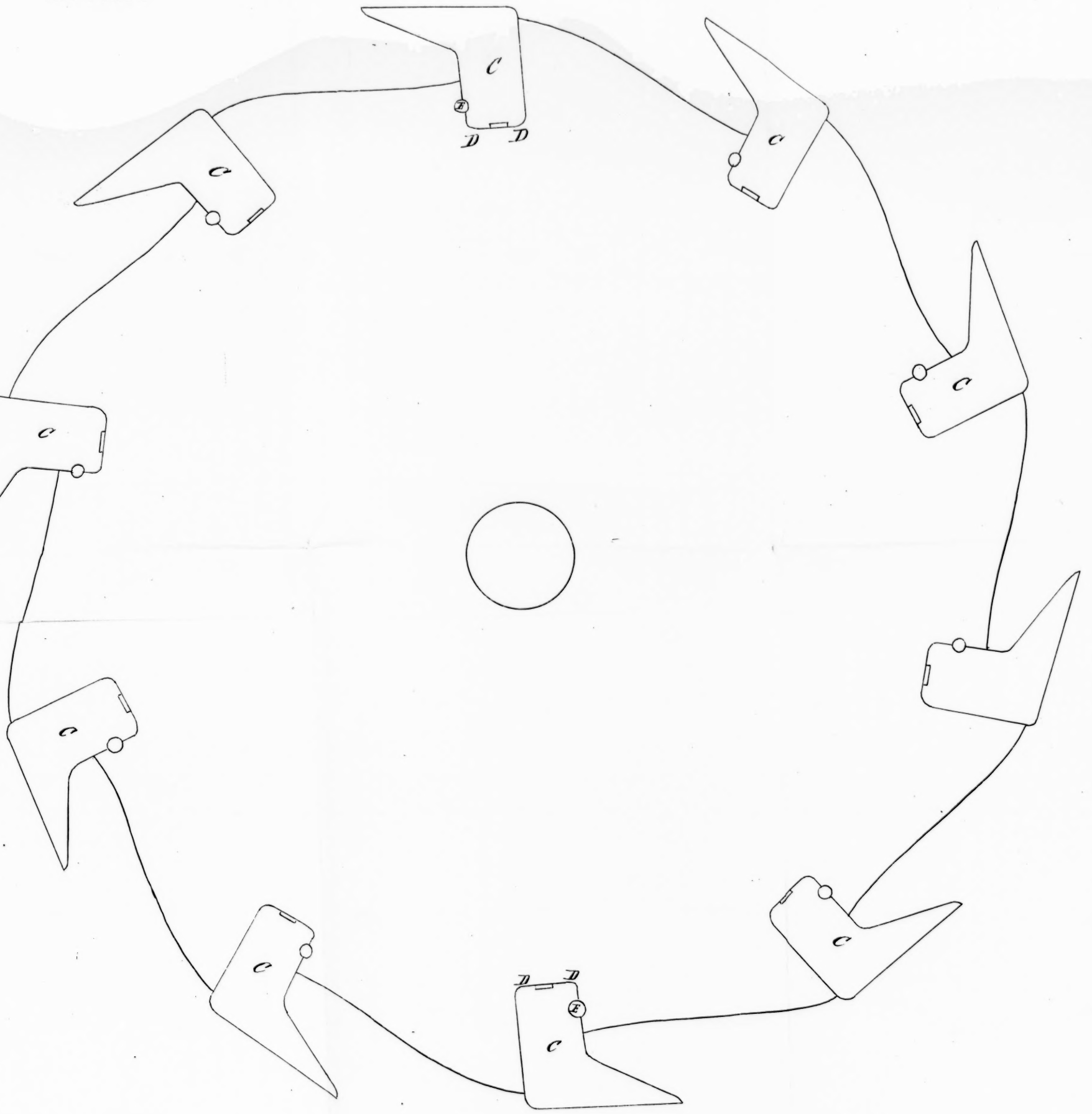


Geometrical and Perspective views of a section with improved Form of teeth.

No. 504. William Tucker Page 15 No. 2.
vs.
Nathan Spalding.

N.W. Spaulding
Impt in Saws.
Reissued April 21. 1863.
No 1456.

Fig. 1.



No 504. Tucker vs. Spalding.-
Page 161- No. 1.

Circular Saw with improved teeth.

Fig. 2.

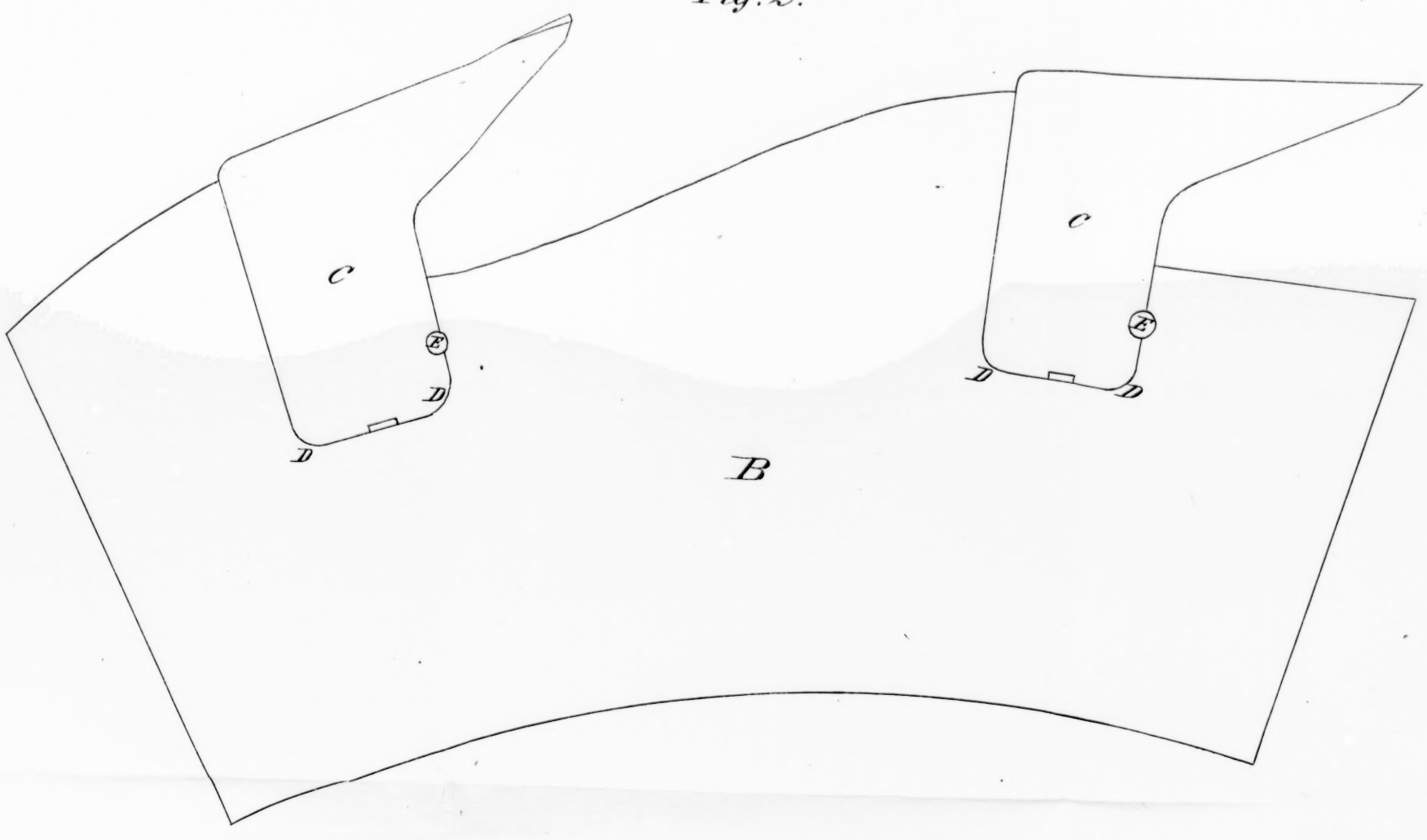


Fig. 3.

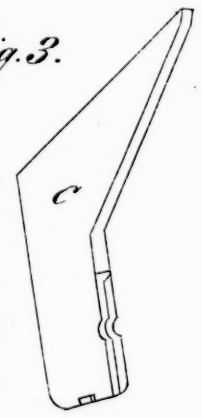
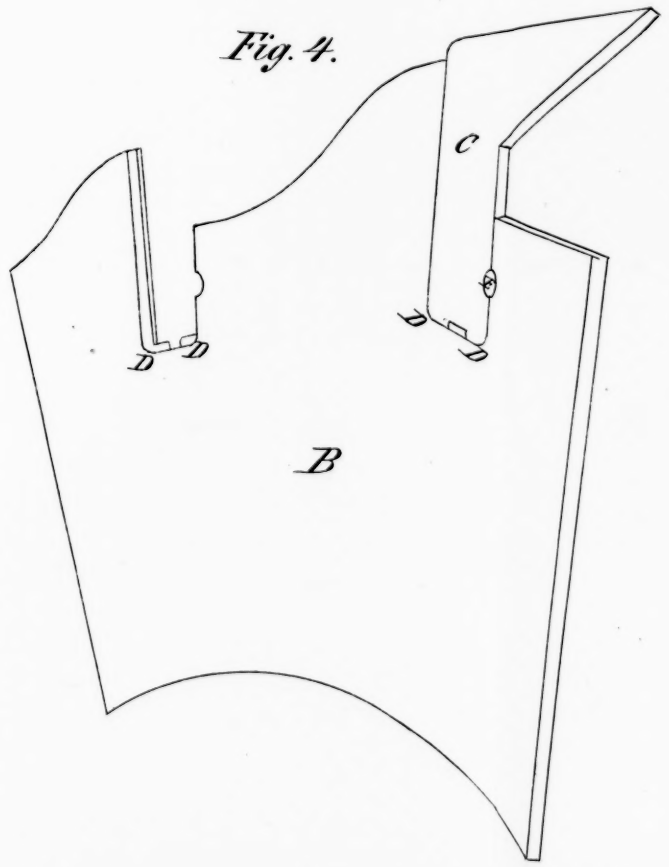


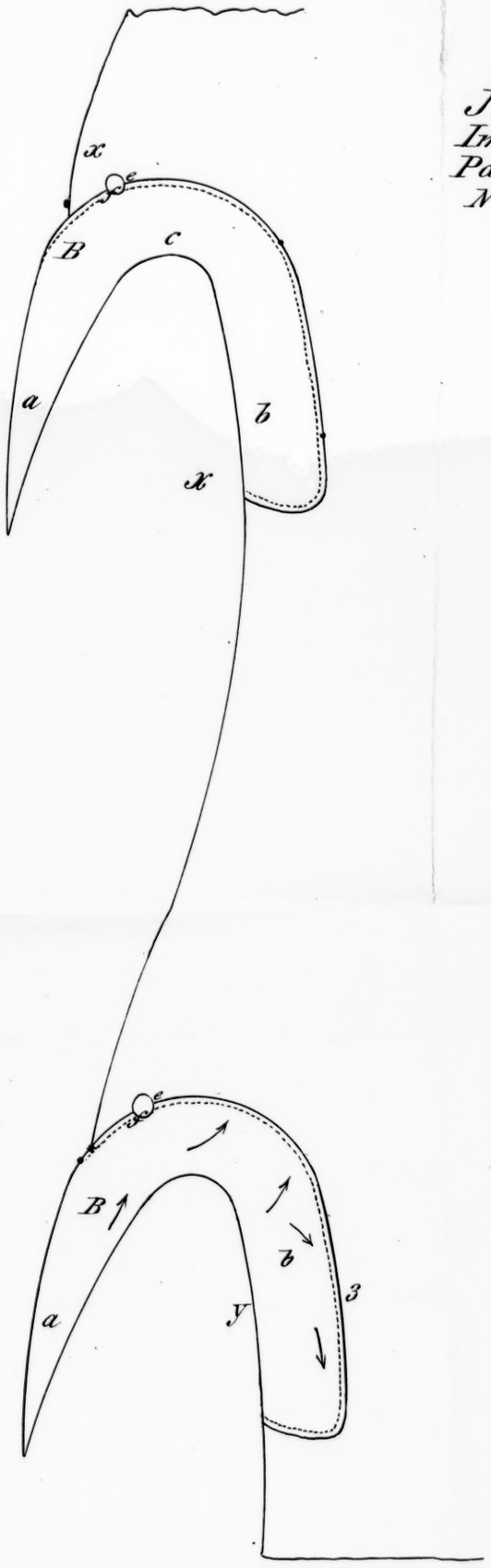
Fig. 4.



Geometrical and Perspective views of a Section with improved form of teeth.

No. 504. Tucker vs. Spalding.
Page 161- No. 2.

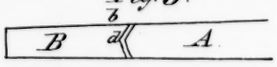
Fig. 1.



J. E. Emerson's
Imp.t in Circular Saws,
Pat.d Sept. 12th 1865.
No. 49.868.

Fig. 2.

Fig. 3.



No. 504. Tucker vs. Spalding. Page 179.

Sheet 1.

J. E. Emerson's Impt in Circular Saws.
Patented Aug. 28. 1866.
No. 57-627.

Fig. 1.

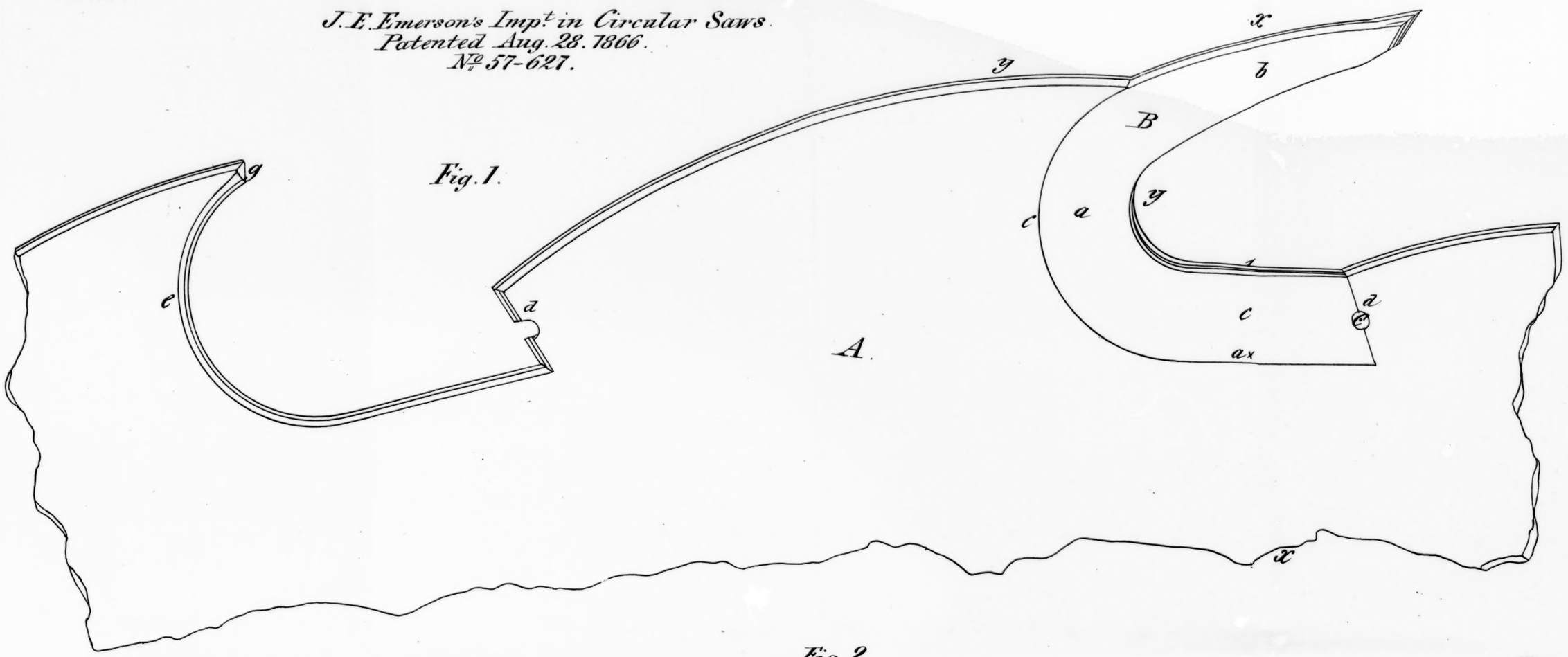


Fig. 2.

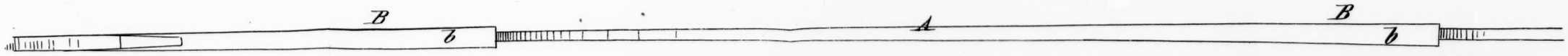


Fig. 3.

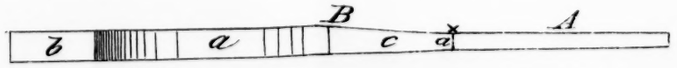
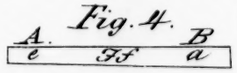


Fig. 4.



No. 504. Tucker vs. Spalding.

Page 191. No. 1.

Sheet 2.

Tucker vs. *Spalding.* *No. 504.* *Page 191. No. 2.*

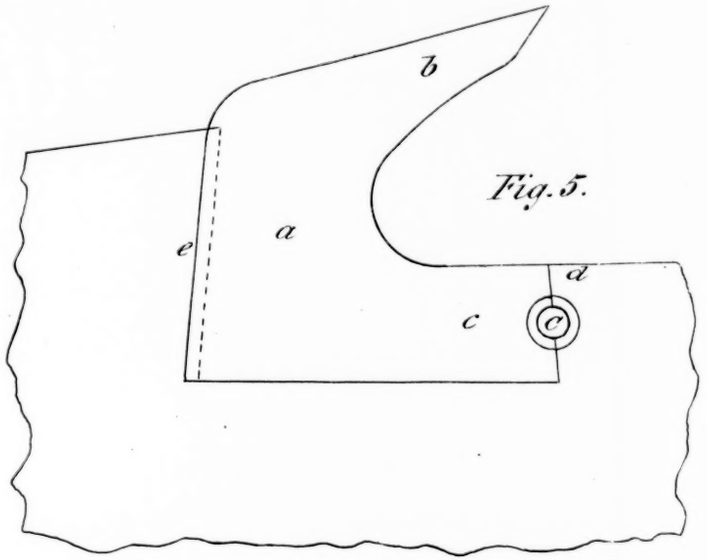


Fig. 5.

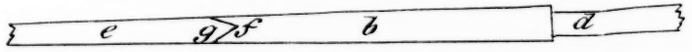


Fig. 8.

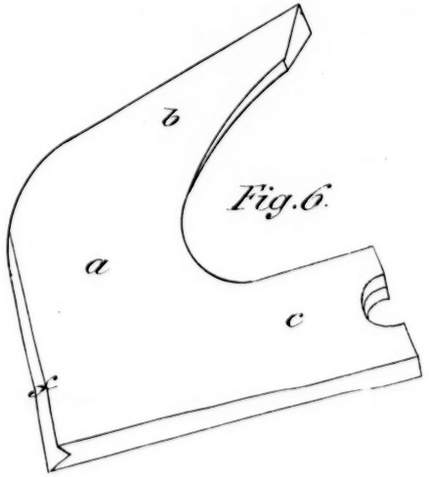


Fig. 6.

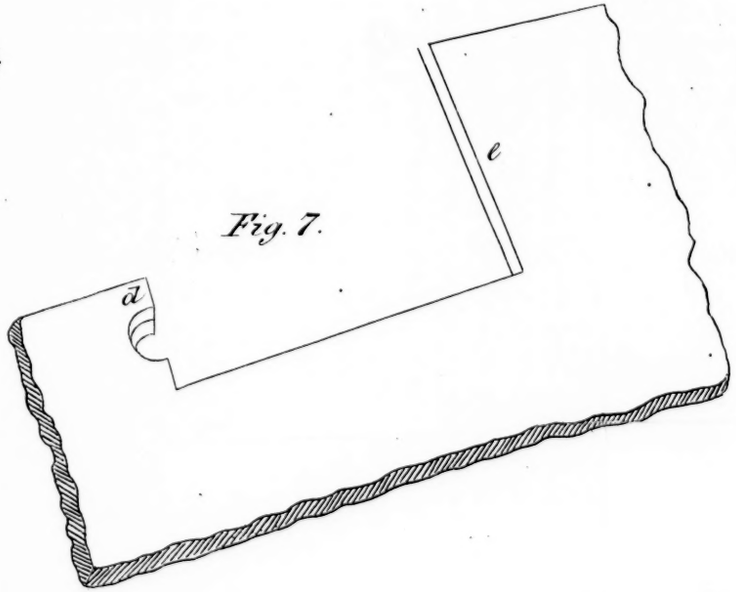


Fig. 7.

Jonah Newton's Impd mode of securing Cutters-to-rotating Discs.
Patented June 19. 1855.
No. 13.096.

Fig. 1.

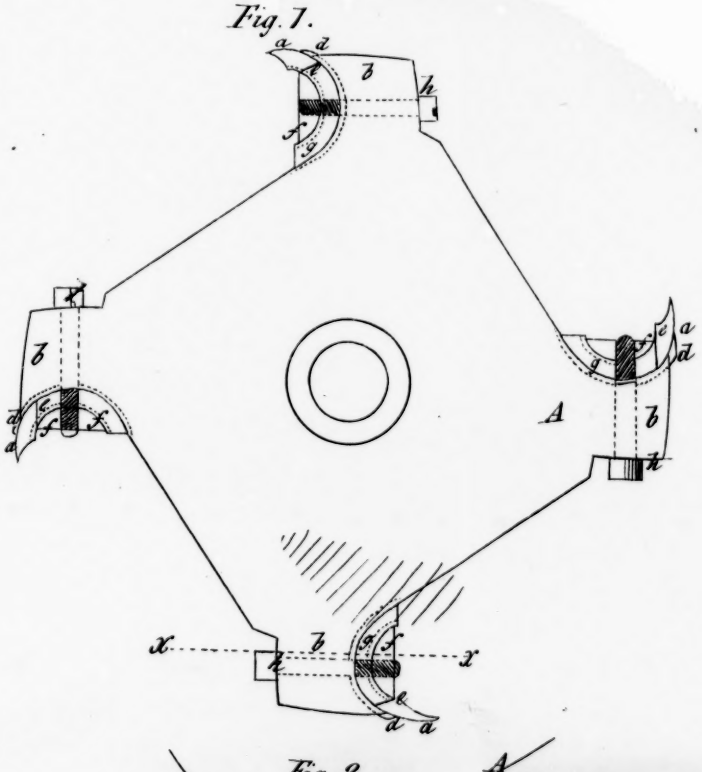


Fig. 2.

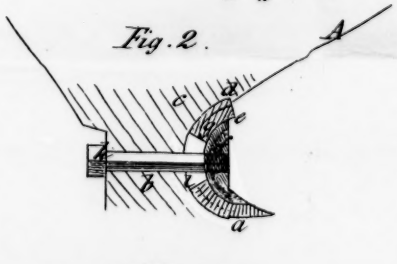
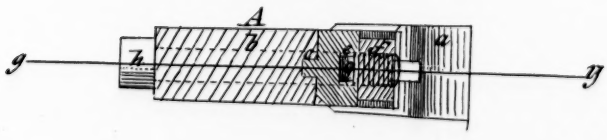


Fig. 3.



No. 504. { *Tucker* vs. *Spalding.* } *Page 199.*